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■

PROPOSED APPROVAL AND PROMULGATION OF STATE IMPLEMENTATION PLANS

New Jersey; Pennsylvania; Texas

ENVIRONMENTAL PROTECTION AGENCY

[40 CFR Part 52]

NEW JERSEY

Approval and Promulgation of Implementation Plans

Under the Clean Air Act Amendments of 1970, Congress required the states to prepare plans for implementing the national ambient air quality standards promulgated by EPA.

EPA promulgated the ambient standards on April 30, 1971. Pursuant to the statutory timetable established by the Act each state had 9 months in which to develop, adopt, and submit detailed plans for implementation of the ambient standards.

The Governor of New Jersey submitted the State's implementation plan to the Administrator on January 26, 1972. At that time, a 2-year extension was requested in the attainment date of the national standards for photochemical oxidants and carbon monoxide in the New Jersey-New York-Connecticut and Metropolitan Philadelphia Interstate Regions.

On May 31, 1972 (37 FR 10842), pursuant to section 110 of the Clean Air Act and 40 CFR Part 51, the Administrator approved, with specific exceptions, State plans for implementation of the national ambient air quality standards.

On January 31, 1973, the United States Court of Appeals for the District of Columbia Circuit found that the Administrator did not conform to the strict requirements of the Clean Air Act of 1970 in permitting several states to delay submission of transportation control portions of their implementation plans until February 15, 1973, and in granting a delay until mid-1977 for attainment of the national primary ambient air standard without following the procedures established in section 110(e) 42 U.S.C. § 1857C-5(e). Accordingly, the court ordered that the Administrator rescind the extension granted the states for implementation plans. The affected states were required to submit a control plan by April 15, 1973, that would ensure attainment of the national ambient air quality standards for photochemical oxidants and/or carbon monoxide as expeditiously as practicable but no later than May 31, 1975.

At the time of the January 31, 1973, court ruling, New Jersey had already submitted an approved transportation plan and, therefore, was not contemplating any additional submission on February 15, 1973. Thus, when the new timetable was set by the Court and the requirements of section 110 further clarified, New Jersey found itself unable to meet the procedural requirements by April 15, 1973. Furthermore, it was not until March 29, 1973, that the State of New York for the first time advised New Jersey of the need for significantly larger than anticipated reductions in hydrocarbon emissions in the New Jersey portion of the New Jersey-New York-Connecticut Region in order to provide for the attainment of the national standard for photochemical oxidants in the New York portion of that Region. Thus, on April 16, 1973, the Commissioner of the New Jersey Department of Environmental Protection, acting on behalf of the Governor, submitted a letter to the EPA Regional Administrator advising him of New Jersey's inability to meet the deadline for plan submittal but assuring him of New Jersey's intent to develop and submit a plan as expeditiously as possible. In this letter the Commissioner listed seven alternative combinations of control strategies that would be considered by the State of New Jersey in order to achieve the national standards for carbon monoxide and photochemical oxidants. The seventh alternative included the following strategies:

1. Compliance with Federal Motor Vehicle Control Program for new vehicles by 1976.

2. Compliance with more restrictive inpsection/maintenance standards that are exepected to reject approximately 45 percent of New Jersey vehicles.

3. Control of stationary sources.

4. Reduction of vehicle miles traveled (VMT) during critical seasons of the year by rationing of gasoline to the extent required to achieve a 67 percent reduction in hydrocarbon emissions. (NOTE: This strategy could be employed singularly, or in combination with any of the above strategies.)

Because of New Jersey's inability to submit transportation control strategies on the deadline imposed by the Court of Appeals, portions of the New Jersey implementation plan were disapproved on June 15, 1973.

In accordance with the requirements of section 110, on this day the Administrator is submitting a proposal for a transportation control plan for the attainment and maintenance of the national primary ambient air quality standard for photochemical oxidants and carbon monoxide in the New Jersey-New York-Connecticut and the Metropolitan Philadelphia Interstate Regions in response to the January 31, 1973, Court order.

Pollution in the New Jersey Portions of the New Jersey-New York Connecticut Region and the Metropolitan Philadelphia Region

The New Jersey portion of the Metropolitan Philadelphia Interstate Region consists of the counties of Burlington, Camden, Gloucester, Mercer, and Salem. The Region is meteorologically and topographically similar consisting, characteristically, of low and generally flat terrain. The population and source density varies greatly throughout the Region ranging from sparsely populated rural areas through mushrooming suburbs to the dense urban core areas surrounding Philadelphia. The highest pollutant concentrations were recorded in the heavily developed western sections of the Region.

The Region is classified priority I with respect to carbon monoxide and photochemical oxidants. The maximum 8-hour carbon monoxide concentrations were recorded in the cities of Trenton and Camden and the maximum 1-hour photochemical oxidant concentrations at the Camden monitoring site in Camden County.

In 1972 there were more than 3,000 violations of the maximum 8-hour carbon monoxide concentration. During the same period the oxidant standard was exceeded three times at the site reporting the highest concentrations.

The New Jersey-New York-Connecticut Region is comprised of the following counties: (1) Bergen, Essex, Hudson, Middlesex Monmouth, Morris, Passaic, Somerset and Union in New Jersey; (2) the five boroughs of New York City, Nassau, Rockland, Suffolk and Westchester Counties in New York State; and (3) Fairfield County in Connecticut. In addition to meteorological and geographical similarity among these counties, the region contains one of the largest metropolitan areas in the world. This area is characterized by a high density commercial-residential core in New York City and a peripheral complex sprawl of industrial and suburban developments interspersed with numerous urban centers. The similarity of source characteristics throughout the area results in common pollutant problems throughout this Region.

The New Jersey portion of the Region had a population of nearly 5 million people in 1970 and about half as many motor vehicles. The rate of growth of both people and motor vehicles is approximately the same. This extremely high motor vehicle population forms an integral part of the transportation system for people and goods in the Region, since only the more central urban areas have well developed mass transit systems.

From a meteorological standpoint, the high degree of urbanization has been found to cause the development of complex wind circulation systems in the Region, resulting in a significant increase in the intraregional transport of pollutants emitted in the area. This consideration is of particular significance in the case of photochemical oxidants, whose formation generally occurs at a considerable distance downwind from the source of the precursors of the photochemical reaction. It is, therefore, necessary to control such reactants throughout the Region to prevent the formation of photochemical oxidants anywhere in the region.

This Region is classified priority I for all pollutants, including those predominantly associated with motor vehicles (carbon monoxide, hydrocarbons, and photochemical oxidants). In 1972, the 8-hour average standard for carbon monoxide was exceeded 352 times in Newark, the site with the highest CO concentration in the New Jersey portion of the region. For this same period, the oxidant standard was exceeded 19 times in the site with the highest concentration in New Jersey.

The primary national ambient air quality standard for photochemical oxidants is 160 $\mu g/m^3$ (0.08 ppm), average for a 1-hour period, and for carbon

monoxide is 40 $\mu g/m^3$ (35 ppm), average for a 1-hour period and 10 $\mu g/m^3$ (9 ppm), average for a 8-hour period, none of which are to be exceeded more than once per year. These standards, promulgated on April 30, 1971 (36 FR 8186), were judged necessary by the Administrator to protect public health with an adequate margin of safety, as required by the Clean Air Act of 1970.

ANALYSIS OF METHODOLOGY

Because ambient concentrations of carbon monoxide, at any given location, appear to be highly dependent on carbon monoxide emission in the near vicinity, it was decided that a strategy based on the area-wide application of the proportional model would be unjustified. The peak concentrations of CO in the central portions of Newark, Camden and Trenton were obviously caused by problems related to traffic density and traffic flow, which were highly localized in nature. Therefore, an effective strategy to reduce CO concentrations in these cities should appropriately concentrate on obtaining the maximum reductions in carbon monoxide emissions in the central business districts (CBD's) of each city. A tailored control strategy of this kind requires the analysis of detailed VMT data that are currently not available. Until such time as the data are obtained, it will be necessary to make assumptions about the CBD distribution from data relating to the counties as a whole.

The formation of photochemical oxidants through atmospheric reactions involving reactive hydrocarbons is strongly influenced by atmospheric transport. It has been determined that hydrocarbon emissions during the period 6 a.m. to 9 a.m. play an important role in the formation of peak concentrations of photochemical oxidants shortly before and after noon. This determination leads to the conclusion that, in general, peak concentrations of photochemical oxidants can be expected at distances representing as much as 3 to 6 hours travel time downwind from the source of emissions provided that the other ingredients for the reaction are present. Thus the formation of photochemical oxidants is regional in nature. Any program to provide for significant reductions in the concentrations of photochemical oxidants in a region that is characterized by widespread, significant sources of hydrocarbons will have to be based on obtaining reductions in emissions of hydrocarbons on a region-wide basis.

During the days of high oxidant concentration, the peak values were found during the period 12 noon to 3 p.m. An analysis of near surface wind flow on days when the concentration of photochemical oxidants exceeded the national standard shows an overwhelming preponderance of cases in which the prevailing wind flow was from the southwest or westerly direction. With this prevailing flow, emissions from the New Jersey portion of the region have the greatest impact in the New York portions of the region particularly in Manhattan, Queens, and Nassau County. Current inventories of hydrocarbon emissions show that 469,000 ton/yr are produced in the New Jersey portion of the region as compared with 401,000 ton/yr in the New York portion of the region. Sources of hydrocarbon emissions in the New Jersey portion of the region can, therefore, be associated with high photochemical oxidant concentrations at the New York State monitor on Welfare Island. Based on these considerations, it will be necessary to reduce hydrocarbon emissions both in the New Jersey and the New York portions of the region by 67 percent in order to achieve the national ambient air quality standard for photochemical oxidants throughout the region.

SUMMARY

Information currently available to the Administrator indicates that reductions of 67 and 17 percent in projected emissions of reactive hydrocarbons are necessary to achieve the national primary ambient air quality standard for photochemical oxidants in 1975 in the New Jersey-New York-Connecticut Region and the Metropolitan Philadelphia Interstate Region, respectively. Reductions of 47 percent, 70 percent and 43 percent are necessary to achieve the National Primary Ambient Air Quality Standard for carbon monoxide in Essex, Mercer, and Camden counties, respectively.

Because the major fraction of reactive hydrocarbon emissions in the New Jersey-New York-Connecticut Region are attributable to motor vehicle emissions, the most effective strategy for achieving reductions in the Region's ambient concentrations must include control of motor vehicle emissions. The analysis performed by EPA indicated that in addition to stringent controls for limiting emissions of individual motor vehicles, a reduction in vehicle miles traveled (VMT) by gasoline-powered motor vehicles of over 60 percent would have to be effected to achieve the ambient air quality standard for photochemical oxidants in 1975 in the New Jersey portion of the New Jersey-New York-Connecticut Interstate Region. In the Metropolitan Philadelphia Interstate Region a combination of motor vehicle controls and the Federal Motor Vehicle Control Program will achieve the photochemical oxidant standard in 1975. This analysis shows that a reduction in VMT in excess of 35 percent would be necessary in the Mercer County portion of the Metropolitan Philadelphia Interstate Region in order to achieve the ambient air quality standard for carbon monoxide by 1975.

In Camden County, a VMT reduction of 33 percent will be necessary to attain the carbon monoxide standards by 1975. The VMT reduction of 33 percent is not achievable by 1975. Additional hardware strategies were investigated for attainment of the standards by 1975, but all were found to be either non-implementable or inconsistent with the strategies proposed in nearby Mercer County. Therefore, a 1-year extension is granted until 1976 with a total VMT reduction of 27 percent to be achieved by that date. In Essex County, a VMT reduction of 41 percent will be necessary to attain the carbon monoxide standards by 1975 without imposition of retrofit devices on light duty vehicles.

If the standard for photochemical oxidants is to be achieved by 1977, it would require a VMT reduction of 68 percent in the New Jersey portion of the New Jersey-New York-Connecticut Interstate Region. A VMT reduction of 30 percent by 1977 would be necessary in the Mercer County portion of the Metropolitan Philadelphia Interstate Region to achieve the carbon monoxide standards. Achievement of the photochemical oxidant standard at this time will assure achievement of the carbon monoxide standard in Essex County.

This proposal includes measures for limiting emissions of hydrocarbons from stationary sources to the maximum extent technologically feasible. It also includes stringent controls for limiting emissions of individual motor vehicles. These controls include the Federal Motor Vehicle Control Program for new light duty vehicles, the maintenance of in-use light duty vehicles to achieve specified emissions limitations, the retroft of all pre-1968 light duty vehicles with a relatively inexpensive emissions control device (vacuum spark advance disconnect) by 1975, and the installation of catalytic converters on cars of later model years to the extent that would be technologically and organizationally feasible by 1977.

The inspection and maintenance proposals for New Jersey differ from those EPA is proposing in other regions because the state of New Jersey has already established most of the elements of such a system under state law, leaving only a few portions to be supplemented by Federal promulgation. The inspection and maintenance system established by New Jersey is the most advanced in the nation. The statewide application of these emission limitations on individual vehicles will provide for the achievement of standards for carbon monoxide and photochemical oxidants throughout other portions of the state.

These measures by themselves will not be sufficient to achieve the standards. Accordingly, the Administrator is also proposing a variety of measures to reduce VMT in the two regions covered by this proposal. In the Philadelphia area, the measures being proposed are a ban on the construction of new parking spaces, and the conversion of selected lanes of major streets and highways to the exclusive use of buses and carpools. In addition, limitations on gasoline consumption are being proposed.

These three measures are also being proposed for the northern New Jersey area. Additional measures being proposed for this region only are a prohibition on daytime deliveries to large commercial establishments by gasoline-powered trucks, a freeze on motorcycle registrations, and a ban on daytime motorcycle operation during the summer months.

The measures being proposed today may be amended, if the comments re-

ceived in response to this Notice, or EPA's own re-examination of the problem, indicate that such a course would be desirable. All new proposals made in the course of this rule making proceeding will be carefully evaluated before a final promulgation is made.

In each of the cases where regulations have been proposed to limit the use of vehicles or require their emissions per mile to be reduced, the state or city will be required to take steps to accomplish the intended result. If this is not done, penalties for violation of the Clean Air Act may be assessed.

EPA doubts whether it has authority in all cases where it must promulgate portions of an implementation plan to require the state concerned to enforce that promulgation. This is so even though one Circuit Court of Appeals has indicated that such a power does indeed exist: Natural Resources Defense Council v. EPA, No. 72-1219 (1st Cir. May 2, 1973).

Instead, it is EPA's position that it may require states or cities to enforce regulations that are related to their position as owners of roads. As owners of roads, states and cities may be held directly responsible for the pollution caused by those roads, and by the traffic which the roads make possible, and may be required to take such steps as are necessary to ensure that the roads and the activities carried out on them cease to cause violations of air quality standards. Regulations have accordingly been drafted to impose enforcement responsibility on the states or cities only where the activity being regulated is in the judgment of EPA closely enough related to the government's position as owner of the roads to justify the imposition of responsibility under this theory.

Based on the extent of analysis completed so far, the Administrator has concluded that the approaches proposed today, including the VMT reductions, are the only ones which could be proposed at this time with any confidence that they would provide for the achievement of the ambient air quality standards. Other approaches, some of which may appear less extreme, present problems regarding feasibility and effectiveness of implementation and enforcement. The Administrator emphasizes that further analysis of the problem will be made to determine whether other options are available.

Although the Environmental Protection Agency (EPA) has serious reservations as to the feasibility and desirability of the VMT reductions required to meet the standards in Northern New Jersey by the statutory deadline, the requirements imposed by the Act leave the Administrator with no presently available legal alternative but to propose this plan. It is clear that extreme measures will be necessary here to comply with statutory requirements and that these measures will have a significant socio-economic impact.

The Transportation Control Plan for New York City submitted by New York State on April 17, 1973, contains control strategies which New York will implement in order to achieve the national standards. These strategies included: (1) Motor vehicle emission control, (2) Traffic control and vehicle-use restraints, (3) Mass transit improvements, (4) Goods movement improvements, and (5) Long range planning. The motor vehicle emissions control strategy includes the retrofit of heavy-duty vehicles. The Plan being proposed for the State of New Jersey is considered to be compatible with the New York State plan.

EPA has not proposed retrofit of heavy duty vehicles as part of its proposed New Jersey Plan. Though this strategy is being accepted in the case of New York, the uncertainties in its implementation date are such that EPA does not feel justified in proposing its establishment as a Federal program. If the state of New Jersey wishes to propose it as a state program, in a manner similar to New York's, then it may well be approved provided it is consistent with the New York program.

It is recommended that if the New Jersey Department of Environmental Protection is considering for its plan a measure that requires the retrofit of heavy-duty vehicles, it should actively work with the New York City Bureau of Motor Vehicle Pollution Control. This will provide a greater assurance that an acceptable device will be available for use in the New Jersey portion of the New Jersey-New York-Connecticut Interstate Region and in the affected New Jersey counties of the Metropolitan Philadelphia Interstate Region.

Extension in the Achievement Date

The January 31, 1973 Court ruling clearly required that a plan be written identifying the strategies that must be applied to demonstrate achievement of the national primary standards for photochemical oxidants and carbon monoxide by 1975. This has been done for the State of New Jersey. It has also been established that certain control strategies cannot be implemented by 1975. It is our judgment that, while certain reductions in VMT will be achievable by 1975 it will require an additional period of at least two years to implement the major portion of the reduction in VMT addressed by this proposal. It has also been determined that retrofit of a significant number of in-use light duty vehicles with catalysts cannot be accomplished before 1977.

Current Studies

The Environmental Protection Agency has published the results of an investigation of certain transportation control strategies in "Evaluating Controls to Reduce Motor Vehicle Emissions in Major Metropolitan Area, Final Report", November, 1972. Copies are available from EPA, Air Pollution Technical Information Center, Research Triangle Park, North Carolina 27711. Additional information is contained in the EPA document, "Control Strategies for In-Use Vehicles," November, 1972. This report is available from EPA, Mobile Source Pollution Control Programs, 401 "M" Streets, S.W., Washington, D.C. 20460.

Specific studies to limit automobile emissions and use in New Jersey are currently being done under EPA contract. The results of these studies were available in April 1973 and were used in the development of the proposed regulations.

Proposed Control Strategy

The Administrator proposes to require controls on stationary sources, the installation of retrofit devices on light duty vehicles, the inspection of automobiles, and the reduction of VMT.

Proposed Controls on Stationary Sources

Controls to prevent hydrocarbon emissions will be imposed on a variety of stationary sources. EPA proposes controls on users of solvents in dry cleaning. Vapor recovery systems that prevent evaporation of gasoline into the air will be required for service stations. In addition, emissions from petroleum storage tanks will be controlled as well as from the manufacturing of paints, varnishes, and dyes using photochemically reactive solvents. Should additional stationary source controls prove feasible and desirable, they may be proposed at a later date.

Proposed Controls and Mobile Sources

Due to the substantial contribution of mobile sources to hydrocarbon emissions in the New Jersey portion of the New Jersey-New York-Connecticut Interstate Region (88,432 tons/yr vs. 30,500 tons/yr. from stationary sources) and in the Metropolitan Philadelphia Interstate Region (88,432 tons/yr vs. 30,500 tons/yr from stationary sources), transportation controls must be imposed in order to achieve enough emission reductions to provide for the achievement of the standards for carbon monoxide and photochemical oxidants. In the case of carbon monoxide, emissions from transportation sources account for greater than 95 percent of the total emissions. Information obtained by the State of New Jersey and EPA during the past year results in estimates of emissions from mobile sources which are significantly different than those contained in the Implementation Plan submitted by New Jersey in January 1972. The difference is attributable to the use of more accurate emission factors that have become available (see "An Interim Report on Motor Vehicle Emission Estimation", Kircher and Armstrong, EPA, October 1972, which is available from the Office of Land Use Planning, EPA, Research Triangle Park, N.C. 27711).

Although the Federal emission standards for new motor vehicles will impose stringent emission limitations on vehicles manufactured in the 1975 and 1976 model years, the reductions obtained will not be adequate to meet the national ambient standards for photochemical oxidants and carbon monoxide in the affected regions of New Jersey by the deadline of May 31, 1977. By that time, no more

than 20 percent of the vehicle population will be 1975 or later cars. Accordingly, the emissions reductions measures outlined above for individual vehicles are being proposed.

PROPOSED REDUCTIONS IN VMT

Reducing the emissions per mile of vehicles as outlined above will not be enough to provide for attainment and maintenance of the national standards. In order to meet the requirements of the Act, limitations must be placed upon the amount of driving done in the affected areas of New Jersey.

As noted above, a VMT reduction of 68 percent will be required in the New Jersey portion of the New York-New Jersey-Connecticut Interstate Region by 1977.

Accordingly, EPA is proposing the VMT reduction measures outlined above for implementation in this area by 1975 or 1977. Certain of the measures are also being proposed for the Philadelphia area.

Other VMT reduction measures, for which no regulatory language has been included, will also be considered as part of this rule-making proceeding. In particular, the advisability of limiting or reducing the number of parking spaces specifically in central business districts or other trip attraction centers, and the feasibility of establishing a more refined bus and carpool transport system by selective conversion of existing streets to their use will be explored. Measures to favor the use of bicycles will also be considered.

The final promulgation may include these other measures not explicitly proposed today if at the time of final promulgation they appear to be the most practicable ways of achieving the standards.

The Administrator is required at this time to propose for promulgation specific measures for reducing the VMT of light-duty vehicles within the New Jersey portion of the New Jersey-New York-Connecticut Interstate Region and within Mercer County which is located in the New Jersey portion of the Metropolitan Philadelphia Interstate Region. Comments are particularly solicited on any other method of VMT reduction that may be less disruptive than those that are being proposed at this time.

All of these measures will not be able to be implemented in full by 1975. However, it should be emphasized that the Clean Air Act requires measures to reduce air pollution which are "reasonably available" by 1975 to be put into effect by that date before an extension of the time for achieving the standards may be granted.

The following tables present a summary of the effect of each element of the proposed strategy for the areas in question. All calculations are based on 1972 air quality data. There is no reason to believe that 1972 was a year of unusually high carbon-monoxide or photochemical oxidant concentration.

COMPILATION OF CONTROL STRATEGY EFFECTS ON MAY 31, 1977—Hydrocarbons

New Jersey Portion of the New Jersey-New York-Connecticut Interstate Region

	Tons Per Year	Percent of Total Reduction Due to Each Control	% Reduction
I. Stationary source emission without control strategy	145,395		
Expected Reductions:			
a. Control of petroleum storage tanks	60,849	19	12.9
b. Control of solvent emissions from dry cleaning	7,167	2	1.5
c. Other stationary source controls	8,229	3	1.8
Stationary emissions remaining	69,150		
II. Aircraft emissions without control strategy	17,575		
Expected Reductions	5,273	2	1.1
Aircraft emissions remaining	12,302		
III. Mobile emissions from on-highway light and heavy duty vehicles and from gasoline marketing operations without control strategy	302,428		
Expected Reductions:			
a. FMVCP	73,674	23	15.7
b. Gasoline marketing vapor control	3,778	1	0.8
c. Inspection and maintenance	18,126	6	3.9
d. Oxidizing catalyst retrofit with VSAD	15,751	5	3.4
e. Oxidizing catalyst retrofit	67,371	21	14.3
f. Reduction in VMT	54,617	18	11.6
Mobile emissions remaining	69,092		
Total Emissions without control strategy	469,901		
Total Reductions	314,834	100	67
Total emissions remaining	155,067		

COMPILATION OF CONTROL STRATEGY EFFECTS ON MAY 31, 1975—Hydrocarbons

New Jersey Portion of the Metropolitan Philadelphia Interstate Region

	Tons Per Year	Percent of Total Reduction Due to Each Control	% Reduction
I. Mobile emissions from on-highway light and heavy duty vehicles and from gasoline marketing operations without control strategy	87,483		
Expected Reduction:			
a. FMVCP	15,883	67	13.4
b. Inspection and Maintenance	5,883	25	4.9
c. Gasoline marketing vapor control	1,100	5	0.9
Mobile Emissions Remaining	64,667		
II. Aircraft emissions without control strategy	1,809		
Expected Reduction	543	3	0.5
Aircraft Emissions Remaining	1,266		
Total Emissions without control strategy	118,932		
Total reductions	23,409	100	19.7
Total Emissions Remaining	95,573		

COMPILATION OF CONTROL STRATEGY EFFECTS ON MAY 31, 1977—CARBON MONOXIDE

Mercer County Portion of the Metropolitan Philadelphia Interstate Region

	Tons Per Year	Percent of Total Reduction Due to Each Control	% Reduction
I. Mobil emmissions from on-highway light and heavy duty vehicles without control strategy	101,842		
Expected Reductions:			
a. FMVCP	41,800	54	38.1
b. Inspection and Maintenance	4,896	7	4.5
c. Oxidizing catalyst retrofit with VSAD	2,942	4	2.7
d. Oxidizing catalyst retrofit	18,967	25	17.3
e. Reduction in VMT	6,447	8	5.9
Mobile Emissions Remaining	26,790		
II. Aircraft emissions without control strategy	5,499		
Expected Reduction	1,650	2	1.5
Aircraft Emissions Remaining	3,849		
Total Emissions without control strategy	109,575		
Total Reduction	76,702	100	70.0
Total Emissions Remaining	32,873		

COMPILATION OF CONTROL STRATEGY EFFECTS ON MAY 31, 1977—Carbon Monoxide

Camden County Portion of the Metropolitan Philadelphia Interstate Region

	Tons Per Year	Percent of Total Reduction Due to Each Control	% Reduction
I. Mobile emissions from on-highway light and heavy duty vehicles without control strategy	131,536		
Expected Reductions:			
a. FMVCP	53,500	87	39.7
b. Inspection and Maintenance	7,804	13	5.8
Mobile Emissions Remaining	70,232		
Total Emissions without control strategy	134,811		
Total Reduction	61,304	100	45.5
Total Emissions Remaining	73,507		

COMPILATION OF CONTROL STRATEGY EFFECTS ON MAY 31, 1977—Carbon Monoxide

Essex County Portion of the New Jersey-New York-Connecticut Interstate Region

	Tons Per Year	Percent of Total Reduction Due to Each Control	% Reduction
I. Mobile emissions from on-highway light and heavy duty vehicles without control strategy	208,671		
Expected Reductions:			
a. FMVCP	61,700	38	27.6
b. Inspection and Maintenance	9,539	6	4.3
c. Oxidizing catalyst retrofit with VSAD	8,236	5	3.7
d. Oxidizing catalyst retrofit	43,875	27	19.7
e. Reductions in VMT	35,735	22	16.0
Mobile Emissions Remaining	49,586		
II. Aircraft emissions without control strategy	9,881		
Expected Reduction	2,917	2	1.3
Aircraft Emissions Remaining	6,917		
Total Emissions without control strategy	223,222		
Expected Reductions	162,049	100	
Total Emissions Remaining	61,173		72.6

Additional technical information is contained in: "Technical Support Document for the Proposed Transportation Control Strategy for the State of New Jersey," available from the Region II Office, Environmental Protection Agency, Room 847, 26 Federal Plaza, New York, N.Y. 10007.

Economic and Social Impact of the New Jersey Transportation Control Plan

Congress recognized that achievement of the goals of the Clean Air Act would have a significant impact on many urban areas. A quantitative assessment of the impact of the plan on the economic and social fabric of the community has not been possible due to the lack of time and the innate complexity of the issue. However, we will attempt to describe briefly the types of impacts which might occur. An immediate impact of the adoption of this proposal will be the imposition of direct costs to vehicle owners and operators. A subsequent impact will be derived from the reduction in the mobility of workers and consumers. This interference with the ability of citizens to move as freely as they are now accustomed to move will alter the activity patterns of many people residing in the state. Obviously, the severity of the impact depends on the degree of vehicle use restrictions, on the manner that direct costs of abatement equipment are recovered, and the degree to which the effects can be ameliorated, particularly through the improvement of the mass transit system.

Elements common to all of the mobile source control strategies considered are limited catalytic retrofits of late model cars, an inspection and maintenance program to insure proper functioning of abatement equipment and emission control devices on gasoline marketing equipment.

The Clean Air Act requires all VMT reduction measures which are "reasonably available" to be put into effect by 1975 before an extension to 1977 of the date for achieving the standards may be granted. It is here assumed that VMT reduction measures which would cause significant social and economic disruption cannot be considered as "reasonably available."

Short of significant social and economic disruption, however, it is plain that the authors of the Clean Air Act anticipated that significant changes in life styles might be called for as a way of meeting air quality standards. Although the impact of the kind of VMT reductions that must be considered "reasonably available" on aspects of human welfare other than air quality is hard to assess precisely it is reasonably clear they will create inconvenience in the short run. Those who have been accustomed to driving alone at their own convenience in the assurance of finding a parking space at shopping or recreation areas or to driving alone to and from work when carpools or mass transit are available, will have to modify their previous habits to some degree. Some shorter trips will be shifted from automobiles to other forms of locomotion such as bicycles or walking. Some trips that are more a matter of convenience than necessity will probably not be taken.

In the longer run, there may well be significant positive aspects to voluntary VMT reductions. Many experts believe that the sprawling development patterns fostered by widespread automobile use are unduly wasteful of energy, land, and other resources, and have contributed to the decay of urban centers. More widespread use of other modes of transportation will be necessary if these tendencies are to be arrested. Though to correct these tendencies is not and cannot legally be the purpose of VMT reductions under the Clean Air Act, they may nevertheless be an essential step in that direction.

No such standard of "reasonable availability" applies to the requirement that the air quality standards must be achieved by 1977. Though of course they should be achieved in the most technically and socially feasible way, the Clean Air Act commands that they must be achieved in any event regardless of economic and social consequences.

It appears that in Northern New Jersey extremely stringent measures may be required to meet this statutory command. The Administrator is concerned about the potential for social disruption this might cause, and will study the situation further to determine whether the standards can be achieved on schedule in a socially and economically feasible way.

EPA Efforts To Mitigate the Effects of Proposed Regulations

The combined effect of these proposed regulations, together with the New Jersey Implementation Plan, will eliminate the danger to human health and welfare that exists in the affected areas from air pollution. They will, however, have a significant economic and social impact. The Administrator will make every effort possible to mitigate the effects of his final promulgation. He will be in contact with the Department of Transportation and other departments as necessary. The Administrator will request that these departments and agencies give special attention to the needs of New Jersey for strategies to reduce VMT, and the needs for mass transit systems to replace the automobile travel eliminated by the proposed controls.

The Need for Mass Transit

The development of large-scale mass transit facilities in the State is essential to any effort to mitigate the disruptions that can be caused by significant reductions in automobile use. A public transportation system that can absorb the travelers displaced by sizable reductions in gasoline consumption or vehicle miles traveled will have to be considerably more extensive than the system now existing for travel within the State. There exists within the State a comprehensive mass transit system to provide transportation to and from the central business districts of Manhattan and Newark. What is needed, in the State of New Jersey, is a comprehensive mass

transit system which will provide transportation for non-work related trips and for work related trips within the State.

The Administrator recognizes that the present low density, sprawling land use pattern in the New Jersey area is not conducive to the efficient use of mass transit. The long-term problems of attaining and maintaining high levels of transit service and use would be considerably eased through the application of public policy measures to promote the centralization and corridorization of activities that generate large demands for transportation.

Proper land use policies would greatly assist the long-term implementation of such emission control measures as VMT reductions.

PUBLIC COMMENTS SOLICITED

Although the Administrator has concluded that the proposed plan is the only approach available to him at the present time that is demonstrably capable of achieving compliance with the requirements of the Act, further analysis may demonstrate that more appropriate options are available. He therefore desires to obtain the comments and suggestions of the public on the problems of achieving the ambient air quality standards in the affected areas of New Jersey. Comments are particularly invited pertaining to measures that may be taken by Federal, State, or local authorities in support of or to supplement the proposed air pollution control strategy for the Regions, means of implementing these measures, and the comparative social and economic effects of alternative pollution control measures.

Public hearings will be held on this and alternative proposals on Monday, July 16, 1973, at 9:00 a.m., in Room 121, Armitage Hall, Rutgers University, Camden, New Jersey; on Tuesday, July 17, 1973, at 9:00 a.m. in the Trenton Auditorium, New Jersey State Museum, 205 West State Street, Trenton, New Jersey; and on Wednesday, July 18, 1973, and, if necessary, on Thursday and Friday, July 19 and 20, 1973, at 9:00 a.m. at the Newark College of Engineering, Room 313, Newark College Engineering Center, 323 High Street, Newark, New Jersey.

The Administrator's final promulgation of transportation control for New Jersey will be greatly influenced by the comments and testimony he receives as well as by the approvable strategies submitted by the State as part of the State plan prior to August 15, 1973. These influences, and the additional analysis of alternative strategies that can be made in the time between this proposal and final promulgation, may lead the Administrator to adopt final regulations that differ in important ways from this proposal.

SUBMITTAL OF WRITTEN COMMENTS

Interested persons may participate in this rule making by submitting written comments, preferably in triplicate, to the Regional Administrator, EPA Region II, 26 Federal Plaza, New York, New York 10007. Receipt of comments will be acknowledged, but substantive responses to individual comments will not be provided. Comments received will be available for public inspection during normal business hours at the EPA Region II Office, and at locations to be announced in the New Jersey area. This notice of proposed rule making is issued under the authority of section 110(c) and 301(a) of the Clean Air Act (42 U.S.C. 1857 et seq.).

Dated: June 22, 1973.

ROBERT W. FRI,
Acting Administrator.

It is proposed to amend Subpart FF of Part 52 of Chapter 1 of Title 40 of the Code of Federal Regulations as follows:

1. Subpart FF is amended by adding the following sections:

§ 52.1583 Regulation for yearly inspection and maintenance.

(a) Definitions:

(1) "Inspection and maintenance" means a program to reduce emissions from in-use vehicles through identifying vehicles that need emission control related maintenance and requiring that maintenance be performed.

(2) All other terms used in this section which are defined in Appendix N to Part 51 of this subchapter, are used herein with the meanings so defined.

(b) This section is applicable in those sections of Bergen, Passaic, Essex, Hudson, Morris, Union, Somerset, Middlesex, and Monmouth Counties contained within the New Jersey-New York-Connecticut Interstate Air Quality Control Region (AQCR) and counties of Mercer, Burlington, Camden, Gloucester, and Salem which constitute the New Jersey portion of the Metropolitan Philadelphia Interstate AQCR.

(c) All registered gasoline-powered light-duty vehicles shall be inspected annually for emissions in accordance with the currently established New Jersey program and, as necessary, maintained by the owner in order to pass the inspection.

(d) After January 1, 1975, the following shall apply in the areas described in paragraph (b) of this section:

(1) The State of New Jersey shall not register light-duty vehicles that do not comply with the provisions of paragraph (c) of this section.

(2) No owner of light-duty vehicles shall operate or allow the operation of such vehicles that do not comply with the provisions of paragraph (c) of this section.

§ 52.1584 Vacuum spark advance disconnect retrofit.

(a) Definitions:

(1) The term "vacuum spark advance disconnect" means a device or system installed on the vehicle which prevents the ignition vacuum advance from operating either when the vehicle's transmission is in the lower gears, or when the vehicle is travelling below a predetermined speed.

(2) All other terms used in this section which are defined in Appendix N of Part 51 of this subchapter are used herein with the meanings so defined.

(b) This section is applicable in those sections of Bergen, Passaic, Essex, Hudson, Morris, Union, Somerset, Middlesex, and Monmouth Counties contained within the New Jersey-New York-Connecticut Interstate Air Quality Control Region and the County of Mercer contained in the Metropolitan Philadelphia Interstate Air Quality Control Region.

(c) The State of New Jersey shall establish a retrofit program to ensure that on or before May 31, 1975, all gasoline powered light-duty vehicles of model years prior to 1968 subject under presently existing legal requirements to registration in the area defined in paragraph (b) above are equipped with an appropriate vacuum spark advance disconnect device. No later than March 1, 1974 the State shall submit legally adopted regulations to EPA establishing such a program. The regulations shall include:

(1) Designation of an agency responsible for evaluating and approving such devices for use on vehicles subject to this section.

(2) Designation of an agency responsible for ensuring that the provisions of paragraph (c)(3) of this section are enforced.

(3) A provision that starting no later than May 31, 1975, no vehicle of which retrofit is required under this section shall pass the annual emissions test provided for by § 52.1583 as a prerequisite to annual registration unless it has been first equipped with an approved vacuum spark advance disconnect retrofit which the test has shown to be installed and operating correctly. The regulations shall include test procedures and failure criteria for implementing this provision.

(4) A method and proposed procedures for ensuring that those installing the retrofits have the training and ability to perform the needed tasks satisfactorily and will have an adequate supply of retrofit components.

(d) After May 31, 1975, no owner of a vehicle subject to this section shall operate or allow the operation of any such vehicle which does not comply with the applicable standards and procedures implementing this section.

(e) The State of New Jersey shall submit, no later than October 1, 1973, a detailed compliance schedule showing the steps it will take to establish and enforce a retrofit program pursuant to paragraph (c) of this section, including the text of needed statutory proposals and needed regulations which it will propose for adoption. The compliance schedule shall also include a date by which the State shall evaluate and approve devices for use in this program. Such date shall be no later than September 30, 1974.

(f) Failure to comply with any provision of this section shall render the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement under section 113 of the Clean Air Act. The state will be considered to have failed to comply with the require-

ments of this section if it fails to timely submit the required compliance schedule, or if the compliance schedule when submitted does not contain in satisfactory form each of the elements it is required to contain.

§ 52.1585 Oxidizing catalyst retrofit.

(a) Definitions:

(1) "Oxidizing catalyst" means a device installed in the exhaust system of the vehicle that utilizes a catalyst and, if necessary, an air pump to reduce emissions of hydrocarbons and carbon monoxide from that vehicle.

(2) All other terms used in this section which are defined in Appendix N to part 51 of this subchapter, are used herein with the meanings so defined.

(b) This section is applicable in those sections of Bergen, Passaic, Essex, Hudson, Morris, Union, Somerset, Middlesex, and Monmouth Counties contained within the New Jersey-New York-Connecticut Interstate Air Quality Control Region and the County of Mercer contained within the Metropolitan Philadelphia Interstate Air Quality Control Region of New Jersey.

(c) The State of New Jersey shall establish a retrofit program to ensure that on or before May 1, 1977, certain gasoline powered light-duty vehicles of model years 1965 through 1974 subject under presently existing legal requirements to registration in the area defined in paragraph (b) above are equipped with an appropriate oxidizing catalyst retrofit device. No later than March 1, 1974, the state shall submit legally adopted regulations to EPA establishing such a program. The regulations shall include:

(1) Designation of an agency responsible for evaluating and approving such devices for use on vehicles subject to this section.

(2) Designation of an agency responsible for ensuring that the provisions of paragraph (c)(3) of this section are enforced.

(3) A provision that starting no later than May 31, 1976, the State of California shall require those light-duty vehicles of 1974 model year and earlier which are able to operate on 91 RON gasoline, to be retrofitted with an oxidizing catalytic converter.

(4) A method and proposed procedures for ensuring that those installing the retrofits have the training and ability to perform the needed tasks satisfactorily and will have an adequate supply of retrofit components.

(d) After May 1, 1977, the State shall not register or allow to operate on its streets or highways any light duty vehicle which does not comply with the applicable standards and procedures adopted pursuant to paragraph (c) of this section.

(e) After May 1, 1977, no owner of a vehicle subject to this section shall operate or allow the operation of any such vehicle which does not comply with the applicable standards and procedures implementing this section.

(f) The State of New Jersey shall submit, no later than October 1, 1973, a detailed compliance schedule showing the steps it will take to establish and enforce a retrofit program pursuant to paragraph (c) of this section, including the text of needed statutory proposals and needed regulations which it will propose for adoption. The compliance schedule shall also include a date by which the State shall evaluate and approve devices for use in this program. Such date shall be no later than September 30, 1975.

(g) Failure to comply with any provisions of this section shall render the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement under section 113 of the Clean Air Act. A state will be considered to have failed to comply with the requirements of this section if it fails to timely submit the required compliance schedule, or if the compliance schedule when submitted does not contain in satisfactory form each of the elements it is required to contain.

§ 52.1586 Daylight delivery ban regulation.

(a) Definitions:

(1) "Daylight hours" means the hours between 7 a.m. and 6 p.m. Monday through Saturday.

(2) "Delivery ban" means a program to reduce emissions from in-use heavy duty gasoline powered vehicles employed to deliver goods during daylight hours.

(3) "Heavy duty gasoline powered vehicle" means any motor vehicle designated primarily for transportation of property and rated at more than 6,000 pounds GVW which is powered by a gasoline burning engine.

(4) All other terms used in this section which are defined in Part 51 of this subchapter are used herein with the meaning so defined.

(b) This section is applicable in those portions of Bergen, Essex, Hudson, Middlesex, Monmouth, Morris, Passaic, Somerset, and Union counties which make up the New Jersey portion of the New Jersey-New York-Connecticut Interstate Air Quality Control Region.

(c) Beginning January 1, 1975, the State of New Jersey, the counties described in paragraph (b) of this section and any incorporated communities located within these counties shall prohibit during daylight hours deliveries of goods to commercial establishments employing 10 or more persons on the streets or highways over which it has ownership or control. The prohibition shall state that heavy duty gasoline powered vehicles making deliveries in violation of the prohibition shall either be towed away, or the owner and/or operator subject to a fine of up to $100 or both.

(d) The State of New Jersey, counties and incorporated municipalities subject to this section shall submit, no later than July 1, 1974, detailed compliance schedules showing the steps they will take to establish and enforce a daylight hours delivery ban program including the statutory proposals and needed regulations which they will propose for adoption. The compliance schedule shall include the date by which the governmental entities will recommend needed legislation to the appropriate body and will identify the State, county, or city officer responsible for enforcement.

(e) Failure to comply with any provision of this section shall render the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement under Section 113 of the Clean Air Act. A state or other governmental entity will be considered to have failed to comply with the requirements of this section if it fails to timely submit any required compliance schedule, or if the compliance schedule when submitted does not contain in satisfactory form each of the elements it is required to contain.

§ 52.1587 Motorcycle limitation program.

(a) Definitions:

(1) "Motorcycle" means any self-propelled two or three wheeled motor vehicle capable of carrying one or more persons.

(2) "Four Stroke Engine" means an internal combustion engine which requires four strokes of the engine's pistons for a complete cycle of operation.

(3) "Two Stroke Engine" means an internal combustion engine which requires two strokes of the engine's pistons for a complete cycle of operation.

(4) "Registration" means the action of a State allowing a vehicle to be operated on the streets and highways in that State during a defined period of time.

(5) "Registration Period" means that period of time for which a vehicle is allowed to be used within the State.

(b) This section is applicable in the New Jersey portion of the New Jersey-New York-Connecticut Interstate Air Quality Control Region.

(c) As of January 1, 1974, or any registration period which commences during the calendar year 1974, the State of New Jersey shall not register in its portion of the New Jersey-New York-Connecticut Interstate Air Quality Control Region more motorcycles than the total number registered in 1973.

(d) As of May 1, 1974, the State of New Jersey shall prohibit the operation of two stroke motorcycles in its portion of the New Jersey-New York-Connecticut Interstate Air Quality Control Region between 6:00 a.m. and 8:00 p.m. during the months of May, June, July, August, and September.

(e) After January 1, 1974, no person shall operate any motorcycle on the streets and highways of the State within the New Jersey portion of the New Jersey-New York-Connecticut Interstate Air Quality Control Region which is not validly registered by the State of New Jersey or by another state.

(f) No later than October 1, 1973, the State shall submit a detailed compliance schedule showing steps it will take to implement and enforce these requirements, including the text of needed statutory proposals and needed regulations which it will propose for adoption. Each schedule shall also include the following:

(1) A date by which the State will adopt procedures necessary to limit the number of motorcycles registered as re-

quired above, to restrict the operation of two stroke motorcycles as required above and to require the registration of all motorcycles operated as required above.

(2) Proposed procedures to ensure that no motorcycle will be registered by the State in a county other than that of the owner's legal residence.

(3) A date by which such procedures will go into effect. Such date shall be no later than January 1, 1974.

(g) Failure to comply with any provision of this section shall render the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement under Section 113 of the Clean Air Act. As to compliance schedules, the State will be considered to have failed to comply with the requirements of this section if it fails to timely submit any required compliance schedule, or if the compliance schedule when submitted does not contain in satisfactory form each of the elements it is required to contain.

§ 52.1588 Gas limitation regulations.

(a) Definitions:

(1) "Base year" means the consecutive twelve month period commencing on July 1, 1972, and ending June 30, 1973.

(2) "Distributor" means any corporation, partnership, or sole proprietorship which transports or stores or causes the transportation or storage of gasoline between any refinery and any retail outlet.

(3) "Retail outlet" means any establishment at which gasoline is sold or offered for sale to the public or introduced into any vehicle.

(b) This section is applicable in those sections of Bergen, Passaic, Essex, Hudson, Morris, Union, Somerset, Middlesex, and Monmouth Counties contained within the New Jersey-New York-Connecticut Interstate Air Quality Control Region (AQCR) and the counties of Mercer, Burlington, Camden, Gloucester, and Salem contained within the Metropolitan Philadelphia Interstate AQCR in the State of New Jersey (hereinafter the "affected areas"), to all distributors who transport gasoline to any retail outlet in this area, and to the owners of all retail outlets in this area.

(c)(1) Beginning July 1, 1974, the State of New Jersey shall implement regulations limiting the total gallonage delivered to retail outlets in the AQCR to the amount delivered to such outlets during the base year.

(2) Beginning May 31, 1977, the State of New Jersey shall implement regulations limiting the total gallonage delivered to retail outlets to that amount which, when combusted, will not result in the ambient air quality standard being exceeded. The state shall by January 1, 1977, submit to the Administrator regulations to accomplish this limitation and specifying the amount of limitation necessary.

(d) In order for the State to determine the amount of gasoline delivered during the base year and each year in which control is in effect, all distributors to which this section applies shall provide the State with a detailed accounting of the amount of gasoline delivered to each retail outlet in the applicable areas during the base year and each year during which the control is in effect. For each year during which control is in effect, the owner of each retail outlet to which this paragraph applies shall provide the State with a detailed accounting of gasoline received from each distributor, the total amount of gasoline sold during the year, and the amount of gasoline on hand at the beginning and end of the year. The State may require any other reports it may deem necessary for the implementation of this section.

(e) The State of New Jersey shall submit no later than October 1, 1973, a detailed compliance schedule showing steps it will take to establish and enforce the limitation program specified in paragraphs (c)(1) and (d) of this section, including the text of needed statutory proposals and needed regulations which it will propose for adoption. Each schedule shall also include the following:

(1) A date by which the State shall adopt procedures to ensure that no more than the amount of gasoline specified in paragraph (c)(1) of this section is delivered to retail outlets in the affected areas. Such date shall be no later than March 30, 1974.

(2) A date by which any report necessary for establishing such procedures shall be furnished to the State by the distributors. Such date shall be no later than January 1, 1974.

(3) An agency responsible for implementation and monitoring of this program.

(f) Failure to comply with any provision of this section shall render the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement under Section 113 of the Clean Air Act. As to compliance schedules, a state will be considered to have failed to comply with the regulations of this section if it fails to timely submit any required compliance schedule, or if the compliance schedule when submitted does not contain in satisfactory form each of the elements it is required to contain.

§ 52.1589 Preferential bus/carpool treatment.

(a) Definitions:

(1) "Carpool" means a vehicle containing three or more persons.

(2) "Bus/carpool lane" means a motor vehicle lane on a street or highway open only to buses (or buses and carpools), whether constructed specially for that purpose or converted from existing lanes.

(3) "Major street or highway" means any street or highway which meets the criteria given in paragraph (b)(4) (ii) and (iii) of this section.

(b) The following provisions apply to all areas within the New Jersey portion of the New Jersey-New York-Connecticut Interstate Air Quality Control Region and for Mercer County in the New Jersey portion of the Metropolitan Philadelphia Interstate Air Quality Control Region (hereinafter the "affected areas").

(1) Each incorporated city within the New Jersey portion of the New Jersey-New York-Connecticut Interstate Region and within Mercer County shall establish bus/carpool lanes on the major streets and highways over which it has ownership or control, beginning on December 1, 1973.

(2) Each county within the affected areas shall establish bus/carpool lanes on the major streets and highways over which it has ownership or control, beginning on December 1, 1973.

(3) The State of New Jersey shall establish bus/carpool lanes on the major streets and highways within the affected areas over which it has ownership or control, beginning December 1, 1973.

(4) Each of the governmental entities named in the previous three subparagraphs shall submit, no later than October 1, 1973, a detailed compliance schedule showing the steps which it will take to establish these bus/carpool lanes and enforce the limitations on their use, with each schedule to include the following:

(i) Each street and highway which will have bus/carpool lanes must be identified with a schedule for the establishment of the lanes.

(ii) If a street or highway has four or more motor vehicle traffic lanes in one direction, at least one of these lanes must be open only to buses (or buses and carpools) at all times. If only one lane is open to buses (or buses and carpools) at all times, a second lane must be open only to buses (or buses and carpools) from 6:30 a.m. to 9:30 a.m. and from 3:30 p.m. to 6:30 p.m.

(iii) If a street or highway has three motor vehicle lanes in one direction, at least one of these lanes must be open only to buses (or buses and carpools) from 6:30 a.m. to 9:30 a.m. and from 3:30 p.m. to 6:30 p.m.

(iv) In unusual situations, a street or highway, or motor vehicle lane or segment thereof, may be exempt from these requirements if an approval of the exemption is obtained from the Administrator. The application for exemption shall not be submitted and will not be accepted after September 1, 1973. Special circumstances justifying the need for an exemption or modification (such as inappropriateness of use by buses or desire to allow bus/carpool lanes to be entered briefly by other vehicles for the purpose of crossing a lane or making a right turn) must be given in detail with the application.

(v) Bus/carpool lanes must be prominently indicated by overhead signs at least once every mile, and at each intersection or entry ramp. Twenty-five percent of the lanes for each of the governmental entities must be established and needed signs must be installed by March 1, 1974; fifty percent by June 1, 1974; seventy-five percent by September 1, 1974; one hundred percent by December 1, 1974.

(vi) Bus/carpool lanes must be prominently indicated by distinctive painted lines, pylons, or physical barriers.

(5) Buses shall have the right of way whenever changing lanes on streets and highways with bus lanes. This shall take

effect as each lane is established and identified.

(6) Buses shall be permitted to make left turns (except when a one-way street would be entered from the wrong direction). This shall take effect January 1, 1974.

(7) None of the governmental entities named in this paragraph (b) shall convert existing on-street parking spaces to use as traffic lanes unless the effect will be to increase the number of bus/carpool lanes on the affected street beyond the number otherwise required by this paragraph (b).

(8) A signed statement by the chief executive officer of each governmental entity or his designee shall be submitted to EPA on October 1, 1973, to identify the source and amount of funds for all actions required by this section.

(c) Failure to comply with any provision of this section shall render the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement under Section 113 of the Clean Air Act. As to compliance schedules, a governmental entity will be considered to have failed to comply with the requirements of this section if it fails to timely submit any required compliance schedule, or if the compliance schedule when submitted does not contain in satisfactory form each of the elements it is required to contain.

§ 52.1590 Management of parking supply.

(a) Definitions:

(1) "Construction" means fabrication, erection, or installation of a parking facility, or any conversion of land to use as a facility.

(2) "Modification" means any change to a parking facility which increases the motor vehicle capacity of such facility.

(3) "Enlargement" means any physical change or addition to a parking facility which increases the motor vehicle capacity of such facility.

(4) "Commenced" means the date on which an owner or operator and a contractor to, or affiliate of such owner or operator, enter into a binding agreement or contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction, modification, or enlargement.

(5) Parking facility (also called "facility") means any facility, building, structure, or lot or portion thereof used primarily for temporary storage of motor vehicles.

(b) This regulation is applicable in all areas within the New Jersey portion of the New Jersey-New York-Connecticut Interstate Region and in Mercer County in the New Jersey portion of the Metropolitan Philadelphia Interstate Region.

(c) No person, after the date of this proposed regulation, shall commence construction of any new parking facility or modify or enlarge any existing parking facility until he has first received from the Administrator or from an agency approved by the Administrator a permit stating that construction, modification, or enlargement of such facility will not interfere with the attainment of maintenance of applicable Federal Air Quality Standards.

(d) In order for any agency to be approved by the Administrator for purposes of issuing permits for construction of any new parking facility or any modification or enlargement of any existing parking facility such agency shall demonstrate to the satisfaction of the Administrator that:

(1) Requirements for permit applications and issuance have been established. Such requirements shall include but not be limited to a requirement that before a permit may be issued, the following findings of fact or factually supported projections must be made:

(i) the location of the proposed facility.

(ii) the total motor vehicle capacity of the proposed facility.

(iii) the normal hours of operation of the proposed facility and the enterprises and activities which it serves.

(iv) the number of people using or engaging in any enterprises or activities which the proposed facility will serve.

(v) the number of motor vehicles using the proposed facility on an average hourly basis and a peak hour basis.

(vi) a projection of the geographic areas in the community from which people and vehicles will be drawn to the proposed facility. Such projections shall include data concerning the availability of public transit from such areas.

(2) Criteria for issuance of permits have been established and published. Such criteria shall include but not be limited to:

(i) full consideration of all facts contained in the application.

(ii) provisions that no permit shall be issued if such permit will result in the increase of VMT within any area the air quality of which fails to meet applicable federal air quality standards.

(3) Agency procedures provide that no permit for the construction, enlargement or modification of a facility covered by this section shall be issued without notice and opportunity for public hearing. The public hearing may be of the legislative type; the notice shall conform to the requirements of § 51.4(b) of this subchapter; and the agency rules of procedure may provide that if no notice of intent to participate in the hearing is received from any member of the public (other than the applicant) prior to seven days before the scheduled hearing date, no hearing need be held. Such a requirement, if imposed, shall be noted prominently in the required notice of hearing.

§ 52.1591 Volatile organic compound loading facilities.

(a) This section is applicable in those portions of Bergen, Passaic, Essex, Hudson, Morris, Union, Somerset, Middlesex, and Monmouth Counties contained within the New Jersey-New York-Connecticut Interstate Air Quality Control Region in the State of New Jersey. Compliance with paragraph (b) of this section shall be in accordance with the provisions of § 52.1599.

(b) No person shall load or allow the loading of volatile organic compounds having a vapor pressure of 1.5 pounds per square inch absolute or greater, under actual storage conditions, into any tank truck or trailer, railroad tank car, locomotive, aircraft, or stationary storage tank with a capacity greater than 5 gallons from any loading facility unless such tank or loading facility is equipped with a vapor collection and disposal system, or its equivalent, properly installed, in good working order, and in operation. Loading shall be accomplished in such a manner that all displaced vapor and air will be vented only to the vapor disposal system.

A means shall be provided to prevent liquid organic compound drainage from the loading device when it is removed from the hatch, or to accomplish complete drainage before such removal. The vapor disposal portion of the system shall consist of one of the following:

(1) An absorber system or condensation system with a minimum recovery efficiency of 90 percent by weight of all the volatile organic compound vapors and gases entering such disposal system.

(2) A vapor handling system that directs all vapors to a fuel gas system.

(3) Other equipment of at least 90 percent efficiency, provided plans for such equipment are submitted to the Administrator for approval as part of the submission required by § 52.1581(a)(1).

Intermediate storage vessels may be used prior to disposal of vapors under paragraph (b) (1), (2), or (3) of this section provided they are so designed as to prevent release of vapors at any time during use.

§ 52.1592 Control of dry cleaning solvent evaporation.

(a) For the purposes of this section: "Drycleaning operation" means that process by which an organic solvent is used in the commercial cleaning of garments and other fabric material.

(b) This section is applicable in those portions of Bergen, Passaic, Essex, Hudson, Morris, Union, Somerset, Middlesex and Monmouth Counties contained within the New Jersey-New York-Connecticut Interstate Air Quality Conrtol Region (AQCR) in the State of New Jersey.

(c) No person shall operate a drycleaning operation unless the uncontrolled organic emissions from such operation have been reduced at least 85 percent, except that drycleaning operations emitting less than 3 pounds per hour and less than 15 pounds per day of uncontrolled organic materials are exempt from the requirements of this section.

(d) If incineration is used as a control technique, 90 percent or more of the carbon in the organic compounds being incinerated must be oxidized to carbon dioxide. Compliance with this requirement shall be in accordance with the provisions of § 52.1599.

(e) Any owner or operator of a stationary source subject to this section

shall achieve compliance with the requirements of paragraph (c) of this section by discontinuing the use of photochemically reactive solvents as defined by § 52.1594(b) no later than January 31, 1974, or by controlling emissions in accordance with the requirements of § 52.1599.

§ 52.1593 Degreasing Operations.

(a) Definitions. "Degreasing" means the operation of using an organic solvent as a surface cleaning agent prior to fabricating, surface coating, electroplating, or any other process.

(b) This section is applicable in those portions of Bergen, Passaic, Essex, Hudson, Morris, Union, Somerset, Middlesex, and Monmouth Counties contained within the New Jersey-New York-Connecticut Interstate Air Quality Control Region (AQCR) in the State of New Jersey.

(c) No person shall use trichloroethylene (TCE) degreaser as a degreasing solvent after January 31, 1974.

§ 52.1594 Organic solvent usage.

(a) This section is applicable in those portions of Bergen, Passaic, Essex, Hudson, Morris, Union, Somerset, Middlesex, and Monmouth Counties contained within the New Jersey-New York-Connecticut Interstate Air Quality Control Region in the State of New Jersey. Compliance with the requirements of paragraphs (b) through (i) of this section shall be in accordance with the provisions of § 52.1599.

(b) A person shall not discharge more than 15 pounds of organic materials into the atmosphere in any one day from any article, machine, equipment or other contrivance in which any organic solvent or any material containing organic solvent comes into contact with flame or is baked, heat-cured or heat polymerized, in the presence of oxygen, unless all organic materials discharged from such article, machine, equipment or other contrivance have been reduced either by at least 85 percent overall or to not more than 15 pounds in any one day.

(c) A person shall not discharge more than 40 pounds of organic material into the atmosphere in any one day from any article, machine, equipment or other contrivance used under conditions other than described in paragraph (b) of this section for employing, applying, evaporating or drying any photochemically reactive solvent, as defined in paragraph (l) of this section, or material containing such solvent, unless all organic materials discharged from such article, machine, equipment or other contrivance have been reduced either by at least 85 percent overall or to not more than 40 pounds in any one day.

(d) Any series of articles, machine, equipment or other contrivance designed for processing a continuously moving sheet, web, strip or wire which is subjected to any combination of operations described in paragraphs (b) or (c) of this section involving any photochemically reactive solvent, as defined in paragraph (1) of this section, or material containing such solvent, shall be subject to compliance with paragraph (c) of this section. Where only non-photochemically reactive solvents or material containing only non-photochemically reactive solvents are employed or applied, and where any portion or portions of said series of articles, machines, equipment or other contrivances involves operations described in paragraph (b) of this section, said portions shall be collectively subject to compliance with paragraph (b) of this section.

(e) Emissions of organic materials to the atmosphere from the cleanup with photochemically reactive solvent, as defined in paragraph (l) of this section, of any article, machine, equipment or other contrivance described in paragraphs (b), (c) or (d) of this section shall be included with the other emissions of organic materials from that article, machine, equipment or other contrivance for determining compliance with this rule.

(f) Emissions of organic materials to the atmosphere as a result of spontaneously continuing drying of products for the first 12 hours after their removal from any article, machine, equipment or other contrivance described in paragraphs (b), (c), or (d) of this section shall be included with other emissions of organic materials from that article, machine, equipment or other contrivance for determining compliance with this rule.

(g) Emissions of organic materials into the atmosphere required to be controlled by paragraphs (b), (c), or (d) of this section shall be reduced by:

(1) Incineration, provided that 90 percent or more of the carbon in the organic material being incinerated is oxidized to carbon dioxide, or

(2) Adsorption, or

(3) Processing in a manner determined by the Administrator to be not less effective than the methods described in paragraph (g) (1) or (2) of this section.

(h) A person incinerating, adsorbing, or otherwise processing organic materials pursuant to this section shall provide, properly install and maintain in calibration, in good working order and in operation devices as specified in the authority to construct or the permit to operate, or as specified by the Administrator, for indicating temperatures, pressures, rates of flow or other operating conditions necessary to determine the degree and effectiveness of air pollution control.

(i) Any person using organic solvents or any materials containing organic solvents shall supply the Administrator, upon request and in the manner and form prescribed by him, written evidence of the chemical composition, physical properties and amount consumed for each organic solvent used.

(j) The provisions of this section shall not apply to:

(1) The manufacture of organic solvents, or the transport or storage of organic solvents or materials containing organic solvents.

(2) The spraying or other employment of insecticides, pesticides or herbicides.

(3) The employment, application, evaporation or drying of saturated halogenated hydrocarbons or perchloroethylene.

(4) The use of any material, in any article, machine, equipment or other contrivance described in paragraphs, (b), (c), (d), or (e) of this section, if:

(i) The volatile content of such material consists only of water and organic solvents, and

(ii) The organic solvents comprise not more than 20 percent by volume of said volatile content, and

(iii) The volatile content is not photochemically reactive as defined in paragraph (l) of this section, and

(iv) The organic solvent or any material containing organic solvent does not come into contact with flame.

(5) The use of any material, in any article, machine, equipment or other contrivance described in paragraphs (b), (c), (d) or (e) of this section, if:

(i) The organic solvent content of such material does not exceed 20 percent by volume of said material, and

(ii) The volatile content is not photochemically reactive as defined in paragraph (l) of this section, and

(iii) More than 50 percent by volume of such volatile material is evaporated before entering a chamber heated above ambient application temperature, and

(iv) The organic solvent or any material containing organic solvent does not come into contact with flame.

(6) The use of any material, in any article, machine, equipment or other contrivance described in paragraphs (b), (c), (d), or (e) of this section, if:

(i) The organic solvent content of such material does not exceed 5 percent by volume of said material, and

(ii) The volatile content is not photochemically reactive as defined in paragraph (l) of this section, and

(iii) The organic solvent or any material containing organic solvent does not come into contact with flame.

(k) For the purposes of this section, organic solvents include diluents and thinners and are defined as organic materials which are liquids at standard conditions and which are used as dissolvers, viscosity reducers or cleaning agents.

(l) For the purpose of this section, a photochemically reactive solvent is any solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified below or which exceeds any of the following individual percentage composition limitations, referred to the total volume of solvent:

(1) A combination of hydrocarbons, alcohols, aldehydes, esters, ethers or ketones having an olefinic or cyclo-olefinic type of unsaturation: 5 percent;

(2) A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene: 8 percent

(3) A combination of ethylbenzene, ketones having branched hydorcarbon structures, trichloroethylene or toluene: 20 percent.

Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the above groups of organic compounds, it shall be considered as a member of the most reactive chemical group, that is, that group having the least allowable percent of the total volume of solvents.

(m) For the purpose of this section, organic materials are defined as chemical compounds of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, metallic carbonates and ammonium carbonate.

(n) This section shall be effective on the date of its adoption as to any article, machine, equipment or other contrivance not then completed and put into service. As to all other articles, machines, equipment or other contrivances, this section shall be effective in accordance with § 52.1599.

§ 52.1595 Storage of petroleum products.

(a) This section is applicable in those portions of Bergen, Passaic, Essex, Hudson, Morris, Union, Somerset, Middlesex and Monmouth Counties contained within the New Jersey-New York-Connecticut Interstate Air Quality Control Region in the State of New Jersey. Compliance with the requirements of paragraph (b) of this section shall be in accordance with the provisions of § 52.1598.

(b) A person shall not place, store or hold in any stationary tank, reservoir or other container of more than 40,000 gallons capacity any gasoline or any petroleum distillate having a vapor pressure of 1.5 pounds per square inch absolute or greater under actual storage conditions, unless such tank, reservoir or other container is a pressure tank maintaining working pressures sufficient at all times to prevent hydrocarbon vapor or gas loss to the atmosphere, or is designed and equipped with one of the following vapor loss control devices, properly installed, in good working order and in operation:

(1) A floating roof, consisting of a pontoon type or double deck type roof, resting on the surface of the liquid contents and equipped with a closure seal, or seals, to close the space between the roof edge and tank wall. The control equipment provided for in this paragraph shall not be used if the gasoline or petroleum distillate has a vapor pressure of 11.0 pounds per square inch absolute or greater under actual storage conditions. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

(2) A vapor recovery system, consisting of vapor gathering system capable of collecting the hydrocarbon vapors and gases discharged and a vapor disposal system capable of processing such hydrocarbon vapors and gases so as to prevent their emission to the atmosphere and with all tank gauging and sampling devices gas-tight, except when gauging or sampling is taking place.

(3) Other equipment of equal efficiency, provided such equipment is submitted to and approved by the Administrator.

§ 52.1596 Gasoline loading into tank trucks and trailers.

(a) This section is applicable in those portions of Bergen, Passaic, Essex, Hudson, Morris, Union, Somerset, Middlesex and Monmouth Counties contained within the New Jersey-New York-Connecticut Interstate Air Quality Control Region and the Counties of Mercer, Burlington, Gloucester, Salem, and Camden contained within the Metropolitan Philadelphia Air Quality Control Region in the State of New Jersey. Compliance with the requirements of paragraph (b) of this section shall be in accordance with the provision of § 52.1599.

(b) A person shall not load gasoline into any tank truck or trailer from any loading facility unless such loading facility is equipped with a vapor collection and disposal system or its equivalent, properly installed, in good working order and in operation. When loading is effected through the hatches of a tank truck or trailer with a loading arm equipped with a vapor collection adaptor, a pneumatic, hydraulic or other mechanical means shall be provided to force a vapor-tight seal between the adapter and the hatch. A means shall be provided to prevent liquid gasoline drainage from the loading device when it is removed from the hatch of any tank truck or trailer, or to accomplish complete drainage before such removal. When loading is effected through means other than hatches, all loading and vapor lines shall be equipped with fittings which make vapor-tight connections and which close automatically when disconnected. The vapor disposal portion of the system shall consist of one of the following:

(1) A vapor/liquid absorber system with a minimum recovery efficiency of 90 percent by weight of all the hydrocarbon vapors and gases entering such disposal system.

(2) A variable vapor space tank, compressor, and fuel gas system of sufficient capacity to receive all hydrocarbon vapors and gases displaced from the tank trucks and trailers being loaded.

(3) Other equipment of at least 90 percent efficiency, provided such equipment is submitted to and approved by the Administrator.

§ 52.1597 Gasoline loading into tanks.

(a) This section is applicable in those portions of Bergen, Passaic, Essex, Hudson, Morris, Union, Somerset, Middlesex and Monmouth Counties contained within the New Jersey-New York-Connecticut Interstate Air Quality Control Region and the Counties of Mercer, Burlington, Gloucester, Salem, and Camden contained within the Metropolitan Philadelphia Interstate Air Quality Control Region in the State of New Jersey. Compliance with the requirements of paragraph (b) of this section shall be in accordance with the provisions of § 52.1599.

(b) (1) A person shall not load or permit the loading of gasoline into any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device or a pressure tank as described in § 52.1596(b). The provisions of this subparagraph shall not apply to the loading of gasoline into any tank having a capacity of less than 2,000 gallons which was installed prior to the date of adoption of this section nor to any underground tank installed prior to the date of adoption of this section where the fill line between the fill connection and tank is offset.

(2) Any person operating or using any gasoline tank with a capacity of 250 gallons or more installed prior to the date of adoption of this section shall apply for a permit to operate such tank. A person shall not install any gasoline tank with a capacity of 250 gallons or more unless such tank is equipped as described in paragraph (b) (1) of this section.

(c) Definitions. (1) For the purpose of this section, the term "gasoline" is defined as any petroleum distillate having a Reid vapor pressure of 4 pounds or greater.

(2) For the purpose of this section, the term "submerged fill pipe" is defined as any fill pipe the discharge opening of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank. "Submerged fill pipe" when applied to a tank which is loaded from the side is defined as any fill pipe the discharge opening of which is entirely submerged when the liquid level is 18 inches above the bottom of the tank.

(3) The provisions of this section do not apply to any stationary tank which is used primarily for the fueling of implements of husbandry.

§ 52.1598 Paint and varnish manufacturing.

(a) This section is applicable in those portions of Bergen, Passaic, Essex, Hudson, Morris, Union, Somerset, Middlesex and Monmouth counties contained within the New Jersey-New York-Connecticut Interstate Air Quality Control Region in the State of New Jersey. Except as provided in paragraph (b) (1) of this section, compliance with paragraphs (b) and (c) of this section shall be in accordance with the provision of § 52.1599.

(b) All persons engaged in the manufacturing of paints shall fulfill one of the following requirements:

(1) Reformulate paint to replace a photochemically reactive solvent with a non-photochemically reactive solvent by January 31, 1974.

(2) Produce water-base coatings.

(3) Condense and absorb by scrubbing with alkali or acid washes.

(4) Scrub and adsorb by activated charcoal or other adsorbants.

(5) Combust organic emissions.

(c) Any manufacturer engaged in the production of varnish shall not engage in such activity unless the manufacturer fulfills the following requirements:

(1) Remove copal vapors through installation of a condensation unit which has been approved by the Administrator.

(2) Remove varnish vapors through installation of a combustion unit which has been approved by the Administrator.

§ 52.1599 Federal compliance schedules.

(a) Except as provided in paragraph (c) of this section, the owner or operator of any stationary source subject to the requirements of §§ 52.1591, 52.1592, 52.1593, 52.1594, 52.1595, 52.1596, 52.1597, 52.1598 shall comply with the compliance schedule in paragraph (b) of this section.

(b) Compliance Schedule. (1) September 17, 1973. Submit to the Administrator a final control plan, which describes at a minimum the steps which will be taken by the source to achieve compliance with the regulations cited in paragraph (a) of this section.

(2) November 16, 1973. Negotiate and sign all necessary contracts for emission control systems or process modifications, or issue orders for the purchase of component parts to accomplish emission control or process modification.

(3) April 1, 1974. Initiate on-site construction or installation of emission control equipment or process modification.

(4) April 1, 1975. Complete on-site construction or installation of emission control equipment or process modification.

(5) May 31, 1975. Final compliance with the regulations cited in paragraph (a) of this section.

(6) Any owner or operator of stationary sources subject to the compliance schedule in this paragraph shall certify to the Administrator, within five days after the deadline for each increment of progress, whether or not the required increment of progress has been met.

(c) Paragraph (b) of this section shall not apply:

(1) To a source which is presently in compliance with the regulations cited in paragraph (a) of this section and which has certified such compliance to the Administrator by September 15, 1973. The Administrator may request whatever supporting information he considers necessary for proper certification.

(2) To a source for which a compliance schedule is adopted by the State and approved by the Administrator.

(3) To a source whose owner or operator submits to the Administrator, by September 15, 1973, a proposed alternative schedule. No such schedule may provide for compliance after May 31, 1975. If promulgated by the Administrator such schedule shall satisfy the requirements of this paragraph for the affected source.

(d) Nothing in this paragraph shall preclude the Administrator from promulgating a separate schedule for any source to which the application of the compliance schedule in paragraph (b) of this section fails to satisfy the requirements of § 51.15(b) and (c) of this subchapter.

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[40 CFR Part 52]

PENNSYLVANIA

Approval and Promulgation of Implementation Plans

Background. The transportation control plan submitted by the Commonwealth of Pennsylvania for attainment of the primary national ambient air quality standard for carbon monoxide (CO) for the Southwest Pennsylvania Intrastate Region and for the Pennsylvania portion of the Metropolitan Philadelphia Interstate Region and for photochemical oxidants (O_x) for the Southwest Pennsylvania Intrastate Region was disapproved in part on June 15, 1973. This notice of proposed rulemaking sets forth regulations which in the Administrator's judgment could be implemented in addition to the approved portions of the Pennsylvania plan to attain and maintain the national standard for carbon monoxide in the Southwest Pennsylvania Intrastate Region and the Pennsylvania portion of the Metropolitan Philadelphia Interstate Region and for photochemical oxidants in the Southwest Pennsylvania Intrastate Region.

If revisions to the State plan are submitted and determined to be approvable prior to Federal promulgation, these proposed regulations will be withdrawn. If revisions to the State plan are submitted and determined to be approvable after Federal promulgation, then those Federal regulations will be rescinded. It is the desire of the Environmental Protection Agency that the plan to attain and maintain the carbon monoxide standard in both Regions and the photochemical oxidant standard in the Southwest Pennsylvania Intrastate Region be a State plan carried out by the State or its designated representative.

SUMMARY

Portions of the Pennsylvania plan were not approved on June 15, 1973, because the justification for claimed reductions and the procedures for administration, enforcement, and monitoring of the strategies were not adequate. Although the general strategies proposed in the plan were approved, the specific control strategy package was not approved. The specific control strategies in the state plan did not guarantee a sufficient degree of carbon monoxide and hydrocarbon emissions reductions to justify a finding that carbon monoxide and photochemical oxidant air quality standards would be attained.

Pennsylvania's request for a 2-year extension cannot be approved at this time because the submittal does not contain sufficient supporting data on the technical infeasibility of the considered control strategy. The opinion of the D.C. Circuit Court of Appeals in NRDC v. EPA requires the agency to apply a very stringent standard of review to state extension requests. On our part, we are proposing a one-year extension of the compliance date because implementation of an air bleed retrofit program cannot be completed until mid-1976. Alternative strategies for this period do not appear technically feasible. If evidence presented at the public hearings or submitted to the agency during the comment period indicates that an additional extension is justified or that this one-year extension is not justified, appropriate revisions will be made in our final promulgation.

The proposed regulations are designed to correct specific deficiencies in the state plan. Because the state plan lacks adequate assurance that all gasoline powered light duty vehicles subject to the Pennsylvania Vehicle Inspection Program will meet emission limitations, a regulation is proposed to prohibit the Commonwealth of Pennsylvania from registering or allowing the operation of vehicles which cannot show proof of satisfactorily the state plan lacks specific assurances of the statep lan lacks specific assurances of emissions reductions from improvements to public transportation, regulations are proposed to establish exclusive bus lanes and to restrict on-street parking. Because the state plan provides no specific "fail-safe" vehicle restraint program, a regulation is proposed to achieve a minimum 13 percent reduction in the number of motor vehicles entering the Central Business Districts of both Philadelphia and Pittsburgh on working days.

A regulation also is proposed to require an air bleed retrofit of all pre-1968 light-duty vehicles and to require inspection and maintenance of these vehicles. As a final assurance of adequate emission reductions, a backup regulation is proposed to limit gasoline sales to their 1972 levels in both regions in the event, now considered unlikely, that market conditions would otherwise allow those sales to increase.

The strategies proposed herein are projected to achieve a 58 percent reduction in carbon monoxide emissions to meet the national ambient air quality standard for carbon monoxide by May 31, 1976, in the Pennsylvania portion of the Metropolitan Philadelphia Interstate Region, and a 57.3 percent reduction in carbon monoxide emissions and 56.5 percent reduction in hydrocarbon emissions to meet the national ambient air quality standards for carbon monoxide and photochemical oxidants by May 31, 1976, in the Southwest Pennsylvania Intrastate Region.

TRANSPORTATION CONTROL ALTERNATIVES

Analysis of the air quality problems in the Commonwealth of Pennsylvania reveal carbon monoxide problems in the Philadelphia and Pittsburgh CBD's within the Metropolitan Philadelphia Interstate Region and the Southwest Pennsylvania Intrastate Region.

Since virtually all carbon monoxide emissions are vehicle related, alternative measures consist of reducing emissions emanating from each vehicle or of reducing vehicular travel. Reductions in emissions from vehicles can be obtained through inspection and maintenance programs and from incorporation of various retrofit devices. Reductions in Vehicle Miles Traveled (VMT) can be

achieved through various pricing and taxing schemes for road use, limitations of gasoline consumption, or adoption of parking restrictions.

Direct vehicle restraints may also be necessary. These can take the form of limitations on gasoline distribution or of restricting access of vehicles to areas of high pollutant concentrations. In situations where the pollutant is carbon monoxide and the area is the CBD, restricting access is preferable. The measure can be confined to the major contributors to the problem and to the area best served by alternative modes of travel.

These automobile use disincentives can be combined most effectively with improvements to public transportation. Such improvements as greater coverage, increased frequency of service, improved reliability, improved comfort, and adequate personal security will further encourage the use of viable transit alternatives to the automobile.

Proposed Additional Control Strategies

The Pennsylvania plan in its demonstration of attainment of the carbon monoxide emissions utilizes five general strategies: the Federal Motor Vehicle Emissions Control Program, the Pennsylvania Motor Vehicle Inspection Program, improvements to public transportation, automobile use disincentives, and automobile restraints. Attainment of the photochemical oxidant standards for the Southwest Pennsylvania Interstate Region by May 31, 1975, was not explicitly demonstrated.

According to the Pennsylvania plan, total carbon monoxide emissions in the Philadelphia CBD were 28,805 tons/year in 1971 and in the Pittsburgh CBD were 13,130 tons/year in 1971; total hydrocarbon emissions in the Southwest Pennsylvania Intrastate Region were not identified in the plan. From EPA calculations based on APTD–1446, "Transportation Controls to Reduce Motor Vehicle Emissions in Pittsburgh, Pennsylvania," hydrocarbon emissions in Allegheny County were 59,200 tons/year in 1971. In order to demonstrate attainment of the standards, the Environmental Protection Agency calculations indicate that carbon monoxide emissions must be reduced by 55.5 percent of the 1971 emissions in the Philadelphia CBD to a level of 12,820 tons/year and by 57 percent of the 1971 emissions in Pittsburgh CBD to a level of 5,650 tons/year, and that hydrocarbon emissions must be reduced by 55 percent of the 1971 emissions in Allegheny County to a level of 26,700 tons/year.

Including projected increases in vehicle miles of travel, the Federal Motor Vehicle Emissions Control Program will reduce carbon monoxide emissions by 40.4 percent to 17,175 tons/year in the Philadelphia CBD by 1975 and by 37.4 percent to 8,219 tons/year in the Pittsburgh CBD by 1976. The Federal Motor Vehicle Emissions Control Program plus the existing program for reduction of stationary sources will reduce hydrocarbon emissions by 46.1 percent to 31,960 tons/year by 1976. These estimates include the 1975 interim motor vehicle emissions standards as announced on April 11, 1973.

To provide the required additional reductions to attain the national ambient air quality standards, several measures controlling mobile sources and reducing VMT are proposed. Mobile source controls include a strengthening of the State's vehicle inspection program and retrofitting of all pre-1968 light duty vehicles. VMT reductions will be realized through improvements to public transportation, a CBD vehicle restriction program, and a limitation on gasoline distribution to 1972 levels.

In order to further ensure that national ambient air quality standards will be achieved as expeditiously as practicable, the following interim measures will be implemented prior to May 31, 1975.

1. Gasoline limitations to 1972 levels.
2. 20 percent vehicle exclusion from the CBD of both Philadelphia and Pittsburgh.

Proposed Controls on Mobile Sources

The Pennsylvania plan demonstrates legal authority for an emissions inspection program as part of the existing semi-annual State vehicle inspection program. A 10 percent carbon monoxide emission reduction for all 1968 and subsequent light duty vehicles is claimed through the use of a diagnostic type inspection/maintenance program. The Environmental Protection Agency proposes an inspection program utilizing an idle mode test with a 30 percent failure criterion. According to Appendix B of Part 51 of this Chapter idle mode inspection on an annual basis can be expected to reduce carbon monoxide emissions by 8 percent per vehicle and to reduce hydrocarbon emissions by 10 percent per vehicle. Inspection on a semi-annual basis should result in at least a 10 percent reduction in carbon monoxide emissions per vehicle and a 12 percent reduction in hydrocarbon emissions per vehicle. Because this inspection program does not apply to heavy-duty vehicles, the effect on total carbon monoxide emissions for the Philadelphia CBD is a 6.8 percent reduction and for the Pittsburgh CBD is a 6.7 percent reduction; the effect on hydrocarbon emissions for Allegheny County is a 6.3 percent reduction. (It should be noted that further reductions in emissions resulting from such controls as retrofit or VMT reductions will reduce the impact of inspections and maintenance identified by the above reductions. This is due to the fact that an inspection and maintenance system will have a proportionately greater effect on uncontrolled vehicles as compared to controlled vehicles).

According to EPA calculations, retrofit of all pre-1968 light duty vehicles with approved air bleed to intake manifold devices will result in an 8 percent carbon monoxide emissions reduction for the Pennsylvania portion of the Metropolitan Philadelphia Interstate Region and for the Allegheny County portion of the Southwest Pennsylvania Intrastate Region in 1976; hydrocarbon reductions for the Allegheny County Region will be 2.2 percent.

Proposed Reductions in VMT

According to the Pennsylvania plan, improvements to public transportation are credited with reducing carbon monoxide emissions by 5 percent in each Region. Because 22 percent of hydrocarbon emissions in Allegheny County are from stationary sources, the net effect of the reduction in hydrocarbon emissions due to public transportation improvements is only 3.7 percent. Specific improvements are cited including streets for exclusive bus lanes, 950 new buses, 144 new rail cars, subway station improvements, and increased parking facilities at commuter stations; but implementation schedules are not firm, providing no assurance for claimed reductions by May 31, 1975. To ensure the stated reductions claimed for mass transportation improvements, the Environmental Protection Agency is proposing two regulations: one for provision of exclusive bus lanes within each Region and one for limitation of on-street parking within the CBD's of each Region.

Automobile disincentives, claiming 10 percent emissions reductions, and automobile restraints are insufficiently described to assure any carbon monoxide or hydrocarbon reductions. To attain the needed reductions for attainment and maintenance of the carbon monoxide and photochemical oxidant national ambient air quality standards, the Environmental Protection Agency proposed vehicle restraints for CBD originating and terminating trips, and a limitation of gasoline sales in the two Regions to the 1972 levels.

The total impact on emissions from direct vehicle restraints is difficult to determine. Secondary benefits from flow improvements and induced public transportation utilization will result, but the precise effect must be measured after the fact. From previous studies of both regions, at least a 1 percent reduction in CBD carbon monoxide and hydrocarbon emissions can be credited to increases in speed due to flow improvements.

In the Pennsylvania portion of the Metropolitan Philadelphia Interstate Region the restricted area will be the Philadelphia CBD; in the Southwest Pennsylvania Intrastate Region the restricted area will be the Pittsburgh CBD. The Governor of Pennsylvania or his designee will divide the vehicle population into six categories. Up to one-third will be designated with special passes and be unrestricted (police and fire vehicles, ambulances, taxis, etc.). The remaining two-thirds or more will be divided into five equal groups and be restricted on a rotational basis, having access to the CBD on a schedule determined by the Governor or his designee.

According to the Pennsylvania plan approximately 60 percent of the VMT in the Philadelphia CBD, and according to APTD–1446, approximately 45 percent of the VMT in the Pittsburgh CBD originates or terminates in the CBD. The ve-

hicle restriction proposal would realize at least 8 percent and 6 percent reductions in VMT in the Philadelphia and Pittsburgh CBD's. According to the "rollback" techniques, this would result in at least 8 percent and 6 percent reductions in carbon monoxide emissions.

The Clean Air Act of 1970 requires attainment of the national ambient air quality standard as expeditiously as practicable but in no case later than May 31, 1975, unless the necessary technology or other control methods are not reasonably available by that date. In the latter event, an extension of time for achieving the standards until no later than May 31, 1977 may be granted, but all reasonably available alternatives must be implemented by 1975, along with such interim measures of control as are deemed to be reasonably available. In light of these specific requirements and the long lead times required for the purchase of new mass transit equipment, it is proposed to limit the sales of gasoline to the 1972 levels in the Southwest Pennsylvania Intrastate and Metropolitan Philadelphia Interstate Regions. From forecasts of VMT growth in the Pittsburgh and Philadelphia CBD's, it is estimated that the proposed gasoline limitation will result in CO emission reductions of 6.6 percent and 2.5 percent in the Pittsburgh and Philadelphia CBD's, respectively, and a hydrocarbon emission reduction of 7.6 percent in Allegheny County.

The proposals described above are the only ones for which regulatory language has been included in this proposal. However, EPA will also consider other VMT reduction measures as part of this rulemaking proceeding, and they may be included in the final promulgation if they are found to be the most feasible methods for achieving the standards. In particular, EPA will explore the possibility of reducing VMT by the selective limitation or reduction of the number of parking spaces in CBD's and other trip attraction centers, and establishing a more sophisticated mass transit system through more selective conversion of traffic lanes on roads to the exclusive use of buses and carpools. Measures to promote the use of bicycles will also be considered. Comments on these and other VMT reduction measures are particularly solicited.

Summary of Effects

The following table is a summary of the effects of each element of the proposed strategies on the total reductions required.

Compilation of Control Strategy Effects on May 31, 1976

	PHILADELPHIA		PITTSBURGH			
	Carbon Monoxide		Carbon Monoxide		Hydrocarbons	
	Tons per Year	Percent of Total Reduction Required	Tons per Year	Percent of Total Reduction Required	Tons per Year	Percent of Total Reduction Required
Stationary source emissions without Control Strategy.	(Neg)		(Neg)		13,050	
a) Dry Cleaning Vapor Recovery	0	0	0	0	180	1.8
b) Gasoline Handling Vapor Recovery.	0	0	0	0	1,070	10.6
c) Other stationary source rule strengthening.	0	0	0	0	3,600	35.5
Stationary Emissions Remaining	(Neg)		(Neg)		8,200	
Mobile Emissions from Light and Heavy Duty Vehicles without Control Strategy.	17,175		8,219		23,760	
Expected Reduction						
a) Inspection and Maintenance	875	20.1	414	16.1	1,720	17.0
b) Air Bleed Retrofit	1,371	31.5	658	25.6	703	6.9
c) Mass Transit Improvements	858	19.7	411	16.0	1,180	11.6
d) Traffic Flow Improvements	172	3.9	82	3.2		
e) 20% Vehicle Exclusion	1,371	31.5	494	19.2	192	1.9
f) Gasoline Limitations	420	9.8	542	21.1	2,420	23.8
Mobile Emissions Remaining	12,099		5,618		17,545	
Total Emissions w/out strategy	17,175		8,219		36,810	
Total Reductions	5,076	116.5	2,601	101.2	11,065	109.1
Total Emissions Remaining	12,099		5,618		25,745	

The regulations proposed herein implement the basic control strategies.

Implementation Procedures

Implementation of the strategies provided for by the regulations proposed herein is the key to the success of the air quality improvement program for the Pennsylvania portion of the Metropolitan Philadelphia Interstate and the Southwest Pennsylvania Intrastate Regions.

Therefore, the proposed regulations also provide for the development of any necessary administrative procedures; schedules of compliance by sources; and surveillance, monitoring, and enforcement activities.

In all cases where VMT reduction measures are being proposed by regulations the state or city will be required to take steps to accomplish the intended result. If this is not done, penalties for violation of the Clean Air Act may be assessed.

EPA doubts whether it has authority in all cases where it must promulgate portions of an implementation plan to require the state concerned to enforce that promulgation. This is so even though one Circuit Court of Appeals has indicated that such a power does indeed exist (Natural Resources Defense Council, Inc., v. EPA, No. 72-1219 (1st Cir. May 2, 1973)).

Instead, it is EPA's position that it may require states or cities to enforce regulations that are related to their position as owners of roads. As owners of roads, states and cities may be held directly responsible for the pollution caused by those roads, and by the traffic which the roads make possible, and may be required to take such steps as are necessary to ensure that the roads and the activities carried out on them cease to cause violations of air quality standards. Regulations have accordingly been drafted to impose enforcement responsibility on the States or cities only where the activity being regulated was, in the judgment of EPA, closely enough related to the government's position as owner of the roads to justify the imposition of responsibility under this theory.

Economic and Social Impact

As noted above, the Clean Air Act only required the application of all control measures that are "reasonably available" to achieve air quality standards by 1975. If more than that would be necessary an extension of up to two years in the time for achieving the standards may be granted. EPA has proposed the granting of a one-year extension of the time for achieving the standards in these two regions. In the Administrator's opinion, the standards can be achieved in these two regions by 1976 through the use of reasonably available control measures.

A measure to reduce VMT cannot be considered "reasonably available" if putting it into effect would cause significant economic and social disruption. However, no such effect is anticipated from the measures proposed today. Though some reduction in personal travel could certainly be absorbed without this effect, the bulk of the travel displaced will have to be absorbed by such other modes of transportation as carpools, walking, bicycling, or public transit.

This can be done in both of the regions concerned here through use of the existing transit facilities, upgrading of bus services (which can be accomplished in a relatively short time), and increased use of carpools, walking and bicycling. Private automobiles, which are designed to carry four to six persons and currently carry an average of 1.5 persons per trip in major urban areas, represent the largest unused pool of transportation capacity currently available.

In addition, many short trips now made by car could be made by walking or bicycling.

Although the impact of VMT reductions on aspects of human welfare other than air quality is as hard to assess precisely as the other aspects of the question, it is reasonably clear they will create significant inconvenience in the short run. Those who have been accustomed to driving downtown at their own convenience in the assurance of finding a parking space while they shop, or to commuting to and from work at times to some extent of their own choosing, will have to modify their previous habits to some degree. Some shorter trips will be shifted from automobiles to more burdensome forms of locomotion such as bicycles or walking. Some trips that are more a matter of convenience than necessity will probably be taken less frequently.

In the longer run, there may well be significant positive aspects to VMT reductions. Many experts believe that the sprawling development patterns fostered by widespread automobile use are unduly wasteful of energy, land, and other resources, and have contributed to the decay of urban centers. More widespread use of other modes of transportation will be necessary if these tendencies are to be corrected. Though to correct these tendencies is not and cannot legally be the purpose of VMT reductions under the Clean Air Act, they may nevertheless be an essential step in that direction.

The proposed vehicle exclusion measure, which is primarily designed to decrease total VMT and hence emissions by encouraging greater use of mass transit and car pooling, may well stimulate the switch to a four-day week by major industries. This may well result in further reductions in VMT and/or total emissions at least in the CBD. The gasoline limitation measure should result in more widespread use of mass transit and/or carpooling, thus resulting in further reductions of the total emissions.

Direct Costs to Automobile Owners

Elements common to all of the transportation control strategies considered are retrofitting of pre-1968 light-duty vehicles and an inspection and maintenance program to ensure proper functioning of abatement equipment. The cost of air bleed control devices should range from $35 to $50. The annual cost of inspection/maintenance is estimated to be $5 to $15.

If a sizable share of these costs falls on individual automobile drivers, the burden will weigh more heavily on low-income families. The effect is exacerbated by the fact that older cars, subject to higher abatement equipment costs, tend to be owned by low-income families.

Manufacturing, Wholesale Trade and the Distribution System

Maintenance of the system to distribute goods is critical to the viability of the economy, especially for life-sustaining necessities.

Large trucks are already largely diesel powered and would be allowed to operate under the proposed plan. Smaller gasoline powered trucks and vehicles would have to be retrofitted with control devices. Their operation would, however, be restricted under gas rationing or under intermittent controls during crisis (air pollution episode) periods.

Costs of doing business may rise to a certain extent. Business may also be faced with increased pressure for higher wages and salaries as workers try to offset increased costs to the individual resulting from the transportation control plan. It is not known whether such costs increases will be significant enough to affect the competitive position of firms in the Pittsburgh and Philadelphia areas, causing them to lose sales both within the respective areas and on goods now produced within the areas and sold to other markets.

Time limitations have made it impossible to investigate effects on specific industries. Some industries will be adversely affected while others will experience an increase in sales. For instance, the burden would fall very hard on service stations and automotive supply outlets. On the other hand, the demand for mass transit and communication facilities will increase. Even with more time, it is not clear that a reasonable estimate of the impact on specific industries could be made.

Tax Revenue Implications

The transportation control plan will have direct and indirect effects on local, State, and Federal Tax revenues. Some illustrative impacts are cited below.

It is not clear whether property taxes collected in the Pittsburgh and Philadelphia areas will rise or fall. It seems certain that property values will change depending on location. For example, property near shipping and work zones will increase in value while that in suburban vicinities will decrease.

Excise, sales, income taxes, and profit would probably decline if purchasing power in the Pittsburgh and Philadelphia areas diminishes. Excise taxes from gasoline would certainly fall. However, declines in revenues related to some forms of spending (gasoline) will be offset to some degree by increased expenditures for other goods.

The effect on State and local budgets will also depend on whether subsidies and/or new taxes (parking, gasoline) related to the transportation control plan will be instituted.

Mass Transit

Attendant improvements and expansion in the existing mass transit facilities in the Philadelphia and Pittsburgh metropolitan areas are a corollary to the proposed reductions in VMT obtained as a result of disincentives and restraints on the personal use of automobiles primarily within the CBD of those cities. The emphasis in the Pittsburgh area must be a large-scale expansion of a very limited public transportation system for CBD commuters. The existing Port Authorities of Allegheny County (Pittsburgh) system consists of about 915 buses and ninety-five streetcars. For the short term, the best possibility of achieving the required expansion is by means of large-scale increases of capacity of radial bus routes. Philadelphia has a number of existing bus and rail routes. The Southeastern Pennsylvania Transportation Authority (SEPTA) system includes 490 rapid transit cars, 478 interurban cars, 1797 buses, and 456 commuter rail cars. These must initially be expanded to absorb expected increases in commuter travel. For example, the capabliity of the existing Penn-Central and Reading rail lines to respond to such increases has been demonstrated during work stoppages affecting the SEPTA bus and trolley systems. However, the amenities of all public transportation systems, as well as the usability they afford the riders, must be considerably improved in order to ensure retention of mass transit commuters.

Although the Administrator does not have the authority to direct Pennsylvania or its jurisdictions to provide expanded mass transit facilities, he is firmly of the belief that such expanded facilities are essential to the success of any air pollution control strategy for the Pittsburgh and Philadelphia areas. The Administrator therefore is conducting an investigation of the needs and possibilities for transit expansion in these areas and he encourages and will provide all possible support to efforts by Federal, State, local governmental, and private groups to expand the mass transit facilities.

Philadelphia is fortunate in that an extensive network of subways, bus lines, trolleys, and commuter rail is already in place and could support a substantial increase in ridership with such system modifications as additional buses, longer trains, shorter headways, and a mid-city tunnel linking the Reading and Penn Central commuter lines. Although many of these improvements are reflected in the Southeast Pennsylvania Transit Authority's six-year plan, substantial support from Federal grants or state/local subsidies will be required.

The problem in Pittsburgh is more formidable since there are no rapid transit or commuter rail systems and the bus-streetcar network is not nearly so extensive as Philadelphia's. Moreover, the Early Action Program, which would result in a greatly expanded mass transit network, has been plagued with innumerable legal and procedural delays, so that Federal assistance would be required in order to ensure the availability of adequate mass transit facilities by 1975 or even by 1976.

Public Comments Solicited

Although the Administrator has concluded that the proposed plan is the best approach available to him at the present time for achieving compliance with the requirements of the Act, further analysis may demonstrate that more appropriate options are available. He therefore desires to obtain the comments and suggestions of the public on the problems of achieving the ambient air quality standards in the Pittsburgh and Philadelphia areas. Comments are particularly invited pertaining to measures that may be taken by Federal, State, or local authorities to support or supplement the proposed air pollution control strategy, to implement these measures, and to compare social and economic effects of alternative pollution control measures.

Public hearings will be held in Philadelphia on July 23 and 24, 1973, beginning at 10 a.m., in conference room B, 11th floor, 1421 Cherry Street; and in Pittsburgh on July 30 and 31, 1973, beginning at 10 a.m. in rooms 2214 and 2218, Federal Building, 1000 Liberty Avenue.

The Administrator's final promulgation of transportation controls for the Pittsburgh and Philadelphia areas will be significantly influenced by the comments and testimony he receives, as well as by the approvable strategies submitted by the State in mid-April as part of the State plan. These influences, and the ad-

ditional analysis of alternative strategies that can be made in the time between this proposal and final promulgation, may lead the Administrator to adopt final regulations that differ in important ways from this proposal.

SUBMITTAL OF WRITTEN COMMENTS

Interested persons may participate in this rule making by submitting written comments, preferably in triplicate, to the Regional Administrator, EPA, Region III, Curtis Building, 6th & Walnut Streets, Philadelphia, Pennsylvania, 19106. All relevant comments received not later than August 1, 1973, will be considered. Receipt of comments will be acknowledged, but substantive responses to individual comments will not be provided. Comments received will be available for public inspection during normal business hours at the EPA Region III Office, and at locations to be announced in the Pittsburgh area. This notice of proposed rule making is issued under the authority of section 110(c) and 301(a) of the Clean Air Act (42 U.S.C. 1857 et seq.).

EPA STUDIES AND GUIDELINES

Further information on transportation control, land use, and motor vehicle emissions may be obtained from one or more of the following documents which the Environmental Protection Agency has published:

a. "Prediction of the Effects of Transportation Controls on Air Quality in Major Metropolitan Areas" and "Evaluating Controls to Reduce Motor Vehicle Emissions in Major Metropolitan Areas," November 1972. Both of these documents are generally known as the "Six Cities Study."

b. "Transportation Controls to Reduce Motor Vehicle Emissions in Major Metropolitan Areas," December 1972. This document is a summary of a study of 14 cities conducted with the view of recommending specific transportation control strategies. (Separate reports for each of the 14 cities are also available.)

NOTE: The documents listed in a and b above are available from the Air Pollution Technical Information Center, EPA, Research Triangle Park, North Carolina 27711.

c. "Control Strategies for In-Use Vehicles," November 1972. This report is available from EPA, Mobile Source Pollution Control Programs, 401 M Street S. W., Washington, D.C. 20460.

d. "Transportation Control Measures," FEDERAL REGISTER (38 FR 15194) June 8, 1973.

e. "Transportation Control Strategies for the State Implementation Plan: City of Philadelphia," APTD-1370 (February 1973), available from EPA, Office of Air and Water Programs, Research Triangle Park, North Carolina 27711.

f. "Transportation Controls to Reduce Motor Vehicle Emissions in Pittsburgh, Pennsylvania," APTD-1446 (December 1972), available from EPA, Office of Air and Water Programs, Research Triangle Park, North Carolina 27711.

(42 U.S.C. 1857 et seq)

Dated: June 22, 1973.

ROBERT W. FRI,
Acting Administrator.

It is proposed to amend Part 52 of Chapter I of Title 40 of the Code of Federal Regulations by adding the following:

Subpart NN—Pennsylvania

§ 52.2037 Inspection and maintenance.

(a) Definitions:

(1) "Inspection and maintenance program" means a program to reduce emissions from in-use vehicles by identifying vehicles which need emission control-related maintenance and requiring that maintenance be performed.

(2) "Idle emission test" means a sampling procedure for exhaust emissions which requires operation of the engine in the idle mode only. At a minimum, the idle test must consist of the following procedures carried out on a fully warmed-up engine: a verification that the idle RPM is within manufacturer's specified limits and a measurement of the exhaust carbon monoxide and/or hydrocarbon concentrations during the period of time from 15 to 25 seconds after the engine either was used to move the car or was run at 2000 to 2500 RPM with no load for 2 or 3 seconds.

(3) "Initial failure rate" means the percentage of vehicles rejected because of excessive emissions of a single pollutant during the first inspection cycle of an inspection/maintenance program. (If inspection is conducted for more than one pollutant, the total failure rate may be higher than the failure rates for each single pollutant.)

(b) This section is applicable within the geographical confines of the Commonwealth of Pennsylvania.

(c) The Commonwealth of Pennsylvania shall submit to the Administrator of EPA or his designee, no later than October 1, 1973, a detailed compliance schedule showing the steps that will be taken to establish and enforce an inspection and maintenance program pursuant to paragraph (d) of this section.

The compliance schedule shall include:

(1) The text of any necessary statutory proposals and regulations that are needed to carry out the inspection/maintenance system.

(2) A detailed timetable describing the steps that must be taken to ensure the timely adoption of the regulations needed for paragraph (d) of this section, and when these steps will be taken.

(3) A detailed timetable describing necessary equipment, and the dates for acquisition thereof.

(4) A signed statement by the chief executive or his designee identifying the sources and amounts of funding for the inspection/maintenance program and a timetable to ensure that proper funding levels are available.

(d) The Commonwealth of Pennsylvania shall establish an inspection and maintenance program applicable to all light duty gasoline powered vehicles which operate on streets or highways over which it has ownership or control. No later than March 1, 1974, the Commonwealth of Pennsylvania shall submit legally adopted regulations to EPA establishing such a program. The regulations shall include:

(1) Provisions for the inspection of all gasoline powered light duty vehicles at periodic intervals of no more than one year by means of an idle test.

(2) Provisions for inspection failure criteria consistent with the emission reduction claimed in the plan for the strategy. These criteria shall include an initial failure rate of 30 percent.

(3) Provisions to ensure that failed vehicles receive the maintenance necessary to achieve compliance with the inspection standards. This shall include sanctions against individual owners and repair facilities, retest of failed vehicles following maintenance, a certification program to insure that repair facilities performing the required maintenance have the necessary equipment, parts and knowledge to perform the tasks satisfactorily, and such other measures as may be necessary or appropriate.

(4) A program of enforcement to insure that vehicles are not intentionally readjusted or modified subsequent to the inspection and/or maintenance in such a way as would cause them to no longer comply with the inspection standards. This might include spot checks or idle adjustments and/or a suitable type of physical tagging.

(5) Delineation of the agency or agencies responsible for conducting, overseeing, and enforcing the inspection and maintenance program.

(e) After January 1, 1975, the Commonwealth of Pennsylvania shall not register nor allow to operate on its streets and highways vehicles which fail within this regulation and have not complied with the applicable standards and procedures of paragraph (d) of this section.

(f) After January 1, 1975, no owner of a vehicle which is affected by its regulation shall operate or allow to be operated a vehicle which does not comply with the applicable standards and procedures adopted pursuant to paragraph (d) of this section.

(g) Failure to comply with any provisions of this section shall render the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement under section 113 of the Clean Air Act. A state will be considered to have failed to comply with the requirements of this section if it fails to timely submit any required compliance schedule, or if the compliance schedule when submitted does not contain in satisfactory form each of the elements it is required to contain.

§ 52.2038 Regulation for limitation of public parking.

(a) Definitions:

(1) "On-street parking" means stopping and leaving a vehicle on a street alongside a curb or sidewalk.

(2) "CBD" is defined as the area bounded by Vine Street, South Street, the Schuylkill River, and the Delaware River, within the City of Philadelphia.

(b) On-street parking limitations.

(1) Beginning January 1, 1974, the City of Philadelphia shall prohibit on-street parking between the hours of 7:00 a.m. and 6:00 p.m., Monday through Saturday, on all streets and highways in the CBD over which it has ownership or control and which contain express bus lanes or trolleys. The prohibition shall

state that vehicles parked in violation of the prohibition shall either be towed away, or the owner subject to a fine of up to $100, or both.

(2) Beginning on January 1, 1974, the State of Pennsylvania shall prohibit on-street parking between the hours of 7:00 a.m. and 6:00 p.m., Monday through Saturday, on all streets or highways in the CBD over which it has ownership or control, and which contain express bus lanes or trolleys. The prohibition shall state that vehicles parked in violation of the prohibition shall either be towed away, or the owner subject to a fine of up to $100. or both.

(c) Failure to comply with any provisions of this section shall render the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement under section 113 of the Clean Air Act.

§ 52.2039 Preferential bus/car pool treatment.

(a) Definitions:

(1) "Carpool" means a vehicle containing three or more persons.

(2) "Bus/car pool lane" means a lane or a street or highway open only to buses (or buses and carpools), whether constructed specially for that purpose or converted from existing lanes.

(3) "Pittsburgh Central Business District (CBD" means an area enclosed by the Allegheny River, the Monongahela River and I–876. I–876 is not included.

(4) "Philadelphia Central Business District (CBD)" means an area enclosed by Vine Street, South Street, the Schuylkill River, and the Delaware River. Vine Street, South Street, and I–95 are not included.

(5) "Major street or highway" means any street or highway which meets the criteria given in paragraph (b)(4) (ii) and (iii) of this section.

(b) The following provisions apply to all areas within the counties of Allegheny, Bucks, Chester, Delaware, Montgomery, and Philadelphia.

(1) The Cities of Philadelphia and Pittsburgh and all incorporated municipalities in counties described above shall establish bus/carpool lanes on the major streets and highways over which they have ownership or control, beginning December 1, 1973.

(2) The following counties shall establish bus/carpool lanes on the major streets and highways over which they have ownership or control, beginning December 1, 1973: Allegheny, Bucks, Chester, Delaware, Montgomery, and Philadelphia.

(3) The State of Pennsylvania shall establish bus/carpool lanes on the major streets and highways over which it has ownership or control, beginning December 1, 1973.

(4) Each of the governmental entities named in the previous three subparagraphs shall submit, no later than October 1, 1973, a detailed compliance schedule showing the steps which it will take to establish these bus/carpool lanes and to enforce the limitations on their use, with each schedule to include the following:

(i) Each street and highway which will have bus/carpool lanes must be identified with a schedule for the establishment of the lanes.

(ii) If a street or highway has four or more traffic lanes in one direction, at least one of these lanes must be open only to buses (or buses and carpools) at all times. If only one lane is open to buses (or buses and carpools) at all times, a second lane must be open only to buses (or buses and carpools) from 6:30 a.m. to 9:30 a.m. and from 3:30 p.m. to 6:30 p.m.

(iii) If a street or highway has three lanes in one direction, at least one of these lanes must be open only to buses (or buses and carpools) from 6:30 a.m. to 9:30 p.m. and from 3:30 p.m. to 6:30 p.m.

(iv) In unusual situations, the street or highway, or segment thereof, may be exempt from these requirements if an approval of the exemption is obtained from the Administrator. The application for exemption shall not be submitted and will not be accepted after September 1, 1973. Special circumstances justifying the need for an exemption (such as inappropriateness of use by buses or desire to allow bus/carpool lanes to be entered briefly by other vehicles for the purpose of crossing a lane or making a right turn) must be given in detail with the application.

(v) Bus/carpool lanes must be prominently indicated by overhead signs at lease once every mile, and at each intersection or entry ramp. Twenty-five percent of the lane mileage for each of the governmental entities must be established, and needed signs must be installed by March 1, 1974; fifty percent by June 1, 1974; seventy-five percent by September 1, 1974; one hundred percent by December 1, 1974.

(vi) Bus/carpool lanes must be prominently indicated by distinctive painted lines, pylons, or physical barrier.

(vii) Between 7:00 a.m. and 6:30 p.m. the right two lanes of each one-way street in the CBD having four or more lanes shall be bus/carpool lanes.

(viii) Between 7:00 a.m. and 6:30 p.m., the right lane of each one-way street in the CBD having three lanes shall be a bus/carpool lane.

(5) Buses shall have the right-of-way whenever changing lanes on streets and highways with bus lanes. This shall take effect as each lane is established and identified.

(6) Buses shall be permitted to make left turns whether or not the intersection is posted for "No Left Turn" (except when a one-way street would be entered from the wrong direction). This shall take effect January 1, 1974.

(7) A signed statement by the chief executive of each governmental entity of his designee shall be submitted to EPA on October 1, 1973 to identify the sources and amount of funds for all projects.

(8) Failure to comply with any provisions of this section shall render the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement under Section 113 of the Clean Air Act. A state or other governmental entity will be considered to have failed to comply with the requirements of this section if it fails to timely submit any required compliance schedule, or if the compliance schedule when submitted does not contain in satisfactory form each of the elements it is required to contain.

§ 52.2040 Selective Vehicle Use Exclusion.

(a) Definitions:

(1) "Philadelphia Central Business District (CBD)" means an area enclosed by Vine Street, South Street, the Schuylkill River, and the Delaware River. Vine Street, South Street, and I–95 are not included.

(2) "Pittsburgh Central Business District (CBD)" means an area enclosed by the Allegheny River, the Monongehela River, adn I–876. I–876 is not included.

(3) "Vehicle Limited Zone" means the Philadelphia CBD and the Pittsburgh CBD.

(b) On or before November 1, 1973, the Governor of the Commonwealth of Pennsylvania shall submit to the Administrator for his approval a procedure for issuing up to six categories of access certificates, one to each vehicle registered after January 1, 1975, in the counties included within the Southwest Pennsylvania Intrastate Region and the Metropolitan Philadelphia Interstate Region. The procedure shall include:

(1) Provisions for the exclusion of vehicles bearing one or more types of the six categories of access certifications from any vehicle limited zone between 7 a.m. and 5 p.m. on different workdays. The number of categories included shall be sufficient to achieve a 15 percent reduction vehicle miles traveled in each vehicle limited zone on such days.

(2) Assurances that households owning more than one car receive only one category of access certificate for all the cars they own.

(3) Provisions that unlimited access certificates may be issued for vehicle use which is deemed essential by the State of Pennsylvania (for example, police, fire, or ambulance, and transit buses).

(4) Prohibitions on vehicles bearing specified certificates from being operated or parked on public streets within the "vehicle limited zone."

(5) Provisions that certificates of access will be distributed to vehicle owners no later than during the registration period beginning January 1, 1975. However, all such certificates must be issued no later than March 31, 1975.

(6) Provisions that actual exclusion will begin as expeditiously as practicable; however, this exclusion shall begin no later than May 31, 1975.

(7) Designation of an agency or agencies which shall be responsible for administration and enforcement of this program.

(8) Procedures necessary to enforce this program (such as establishing spot-check locations and issuing citations to those prohibited from driving on such day).

(c) Beginning no later than January 1, 1975, the Commonwealth of Pennsylvania shall not register any vehicle subject to the provisions of paragraph (b) of this section without issuing suitable access certificates to the owner.

(d) Beginning no later than January 1, 1975, no vehicle owner subject to the provisions of paragraph (b) of this section shall operate or allow the operation of such vehicle which does not have the access certificate prominently affixed to his or her vehicle. Each vehicle's access certificate shall be large enough and well enough displayed to be as prominent to outside observers as a license plate.

(e) Failure to comply with any provisions of this section shall render the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement under section 113 of the Clean Air Act. A state or other governmental entity will be considered to have failed to comply with the requirements of this section if it fails to submit on a timely basis any required compliance schedule, or if the compliance schedule when submitted does not contain in satisfactory form each of the elements it is required to contain.

§ 52.2042 Gas Limitation Regulations.

(a) Definitions:

(1) "Base year" means the consecutive twelve month period commencing on July 1, 1972, and ending June 30, 1973.

(2) "Distributor" means any corporation, partnership, or sole proprietorship which transports or stores or causes the transportation or storage of gasoline between any refinery and any retail outlet.

(3) "Retail outlet" means any establishment at which gasoline is sold or offered for sale to the public or introduced into any vehicle.

(b) This paragraph is applicable in the Pennsylvania portion of the Metropolitan Philadelphia Interstate AQCR and Southwest Pennsylvania Interstate AWCR, to all distributors who transport gasoline to any retail outlet in this area, and to the owners of retail outlets in this area.

(c) Beginning July 1, 1974, the Commonwealth of Pennsylvania shall implement regulations limiting the total gallonage delivered to retail outlets in the area described in paragraph (b) of this section to the amount delivered to such outlets during the base year.

(d) In order for the State to determine the amount of gasoline delivered during the base year and each year in which control is in effect, all distributors to which this section applies shall provide the State with a detailed accounting of the amount of gasoline delivered to each retail outlet in the areas described in paragraph (b) of this section during the base year, and the years during which control is in effect. For the year during which control is in effect, the owner of each retail outlet to which this paragraph applies shall provide the State with a detailed accounting of gasoline received from each distributor, the total amount of gasoline sold during the year, and the amount of gasoline on hand at the beginning and end of the year. The State may require any other reports it may deem necessary for the implementation of this section.

(e) The Commonwealth of Pennsylvania shall submit no later than October 1, 1973, a detailed compliance schedule showing steps it will take to establish and enforce the limitation program specified in paragraphs (c) and (d) of this section including the text of needed statutory proposals and needed regulations which it will propose for adoption. Each schedule shall also include the following:

(1) A date by which the State shall adopt procedures to ensure that no more than the amount of gasoline specified in paragraph (c) of this section is delivered to retail outlets in the areas affected. Such date shall be no later than March 30, 1974.

(2) A date by which any report necessary for establishing such procedures shall be furnished to the State by the distributors. Such date shall be no later than January 1, 1974.

(3) An agency responsible for implementation and monitoring of this program.

(f) Failure to comply with any provisions of this section shall render the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement under Section 113 of the Clean Air Act. A state will be considered to have failed to comply with the requirements of this section if it fails to timely submit any required compliance schedule, or if the compliance schedule when submitted does not contain in satisfactory form each of the elements it is required to contain.

[FR Doc.73-13632 Filed 7-2-73;8:45 am]

[40 CFR Part 52]

TEXAS

Approval and Promulgation of Implementation Plans

This notice of proposed rule making sets forth an emission control plan for certain air quality control regions in Texas as required by order of the U.S. Court of Appeals for the District of Columbia Circuit, January 13, 1973. This proposal results from the failure of the State of Texas to submit a fully acceptable revised implementation plan for the attainment and maintenance of the National Primary Ambient Air Quality Standard for photochemical oxidants as required by this court order.

This proposal sets forth a plan which in the Administrator's judgment could be implemented to attain and maintain the national standards for photochemical oxidants in the State of Texas by May 31, 1975.

If a State plan which is submitted is determined to be approvable prior to Federal promulgation of a plan, then the Federal plan will not be promulgated. If a State plan is determined to be approvable after Federal promulgation of a plan, then the Federal plan will be rescinded. It is the desire of the Environmental Protection Agency that the plan be a State plan implemented and enforced by the State.

The regulations proposed herein implement the basic control strategy.

BACKGROUND

On May 31, 1972 (37 FR 10842), pursuant to section 110 of the Clean Air Act and 40 CFR Part 51, the Administrator approved, with specific exceptions, state plans for implementation of the national ambient air quality standards. To complete the requirements of § 51.11(b) and 51.14 of 40 CFR Part 51, the Governor of Texas was required to submit to the Administrator no later than February 15, 1973, a timetable for the development of the legal authority, regulations and administrative policies necessary to carry out a vehicle inspection program which would assist in providing for the attainment of national ambient air quality standards in the Austin-Waco, Metropolitan Dallas-Fort Worth, Metropolitan San Antonio, and El Paso-Las Cruces-Alamogordo Regions by 1975, and in the Corpus Christi-Victoria and Metropolitan Houston-Galveston Regions by 1977.

On January 31, 1973, the U.S. Court of Appeals for the District of Columbia Circuit decided the case of "Natural Resources Defense Council, et al. v. Environmental Protection Agency" (Civil Action No. 72-1522) and seven other related cases, hereafter referred to as NRDC v. EPA. It issued an order which required the Administrator to formally rescind the extensions of time which had been granted for achieving the standards, and to require all affected states to formally submit transportation control plans by April 15, 1973.

The State of Texas submitted a revision to the Texas Air Pollution Implementation Plan on April 15, 1973. Along with that submittal, the Governor of Texas again requested an extension until 1977 for the attainment of the standard for photochemical oxidants in seven Texas Air Quality Control Regions. The State Plan indicated that the 1975 ambient air quality standards would be met by May 31, 1975 by utilizing a stationary source strategy that would regulate reactive carbon compounds. Using data from AP-84 (Air Quality Criteria for Nitrogen Oxides), the State developed a model relationship similar to Appendix J of the August 14, 1971, FEDERAL REGISTER, but based on non-methane hydrocarbons. Using this relationship, the percent reduction required for reactive hydrocarbon emissions was significantly lower than that percent reduction required for total hydrocarbons using Appendix J. To estimate reductions in reactive hydrocarbons resulting from their strategy, the State separated reactive and non-reactive components in the hydrocarbon emission inventory.

The reduction relationship developed by the State presumes the non-existence of data at the "lower end" (below 0.3 ppm non-methane hydrocarbons) of the oxidant non-methane hydrocarbon relationship described in AP-84. In fact, data does exist in this range, but was not

plotted due to low confidence levels resulting from the measurement technique employed (see Reference 8 of section 4, AP-84). Consideration of this "omitted" data could result in a reduction requirement model even more stringent than Appendix J. Therefore, it is the opinion of the Administrator that the reduction relationship developed by the State should not be accepted as an appropriate reduction model. On the other hand, Appendix J does not account for the utilization of a reactive hydrocarbon approach, and is therefore not appropriate for use in that case either. Since a reduction in reactive hydrocarbons relates more closely to a subsequent reduction in oxidants, a reactive hydrocarbon strategy approach is desirable. In the absence of an adequate photochemical diffusion model, an appropriate relationship for use with a reactive hydrocarbon approach is straight percentage reduction. Precedence for the use of a reactive hydrocarbon approach has been established and this technique has been used in other critical areas of the United States.

EPA believes the procedures and reactivity data developed by the State of Texas to separate reactive carbon compounds from total hydrocarbon emissions for petroleum refining, chemical processes, and certain transportation categories were inconsistent with data that showed the relationship between reactive and non-reactive components for identical processes and sources in other areas of the country. Generally, the approach used by the State overestimated reactive emissions from petroleum refining, chemical processes, aircraft and diesel engines, and underestimated the reactive emissions from gasoline powered motor vehicles. Estimates for most other emission categories are consistent.

The State emission inventory for total hydrocarbons and the procedure used to estimate the effects of Texas' Regulation V was determined to be adequate and was used directly in the development of the plan proposed herein except for certain transportation categories. The plan proposed herein is based on a reactive hydrocarbon control approach. The required reactive hydrocarbon reductions for each region are based on straight percentage rollback from the baseline oxidant air quality measurements in that region. The plans proposed are the results of extensive continuing studies that were initiated by EPA following the approval and promulgation of implementation plans, on May 31, 1972.

Air Quality in the State of Texas

There are seven air quality control regions in the State of Texas that have been classified priority 1 for photochemical oxidants (hydrocarbons). The regions are: AQCR 3 Austin-Waco, AQCR 5 Corpus Christi, AQCR 7 Houston-Galveston, AQCR 8 Dallas-Fort Worth, AQCR 9 San Antonio, AQCR 10 Southern Louisiana-Southwest Texas, AQCR 11 El Paso. The plan herein proposed is designed to attain and maintain the national ambient air quality standard for oxidants in all six of the AQCRs cited in the May 31, 1972 Federal Register. However, during subsequent development of the hydrocarbon control strategies for the State of Texas, it was determined that the seventh region, Southern Louisiana-Southeast Texas Interstate Region, would also require a modified control strategy for the control of hydrocarbon emissions. Due to the severe schedule limitations imposed upon the Administrator resulting from the implementation of the court order, a plan for controlling hydrocarbon emissions in Texas' portion of the Southern Louisiana-Southeast Texas Interstate Region has not been fully completed for inclusion in this proposed rulemaking. However, it is the opinion of the Administrator that, as a minimum, controls for limiting reactive hydrocarbon emissions from the stationary sources located there should be included as part of this proposed rule making. It has been determined that approximately 80 percent of the total hydrocarbon emissions in this Region result from stationary sources. It is the intent of the Administrator to develop a comprehensive study of this Region which would provide the basis for making a determination of the necessity for transportation and/or land use controls. If it is determined that transportation and/or land use controls are needed to complement the control of stationary sources proposed herein, regulations implementing these controls will be proposed in the Federal Register in the near future.

The standard for photochemical oxidants is 160 ug/m³ (0.08 ppm) averaged for a one-hour period, not to be exceeded more than once per year. The standard, promulgated on April 30, 1971 (36 FR 8186), is based on evidence of increased frequency of asthma attacks in some asthmatic subjects on days when estimated hourly averaged concentrations of photochemicals oxidants reached 0.10 ppm. A standard of 0.08 ppm was therefore judged necesary by the Administrator to protect public health with an adequate margin of safety, as required by the Clean Air Act.

The following table summarizes the basis for the proposed plan:

Region	2nd Highest O_3 Measurement to Date	Percent Emission Reduction Required	% Emission Reductions Achieved Under Present State & Federal Requirements	
			1975	1977
3	0.109 ppm	27%	19.8%	30.6%
5	0.184 ppm	56%	64.6%	66.9%
7	0.320 ppm	78%	64.0%	66.4%
8	0.125 ppm	36%	23.0%	34.0%
9	0.145 ppm	45%	20.6%	30.7%
10	0.341 ppm	77%		
11	0.120 ppm	34%	24.7%	36.0%

Current Studies

The Environmental Protection Agency has published a report entitled, "Control Strategies for In-Use Vehicles," November, 1972, available from EPA, Mobile Source Pollution Control Programs, 401 M Street S.W., Washington, D.C., 20460. Other relevant publications available from EPA, Office of Technical Information and Publications, Research Triangle Park, N.C., 27711, include "Aircraft Emissions: Impact on Air Quality and Feasibility of Control", and "Compilation of Air Pollutant Emission Factors". Specific studies directly concerning the Texas air quality control regions mentioned here are currently being performed under EPA contract. The results of these studies will be available in July, 1973. Preliminary results were used in the development of the following proposed plan.

Methods Available to Reduce Reactive Organic (Hydrocarbon) Compounds

The Administrator's analysis of the control strategies required to meet ambient air quality standards for oxidants included evaluation of additional stationary source controls in combination with mobile source controls. The proposed control strategy for each air quality control region is based on the most promising combination for that particular region. In addition, every effort was made to incorporate portions of the state plan where possible, and to follow known state priorities and planning in setting forth additional proposals. The following is a summary of the measures proposed.

Stationary Sources

EPA looked first to the reductions in emissions that might be achieved by further control of stationary sources for a variety of reasons. The nature of the controls available, their cost, and their effectiveness are relatively well known. The states and EPA have had significant experience in enforcing similar measures. It can be predicted with confidence that none of these measures will cause any noticeable economic or social disruption even though some burden on individuals may result from them.

The following emission reduction measures are applicable to stationary sources of reactive organic compound emissions.

1. *Extend application of Texas' regulation V.* Texas' present Regulation V, "Control of Air Pollution from Volatile Organic Compounds" is now applied to sixteen counties. Significant reduction may be obtained by applying this regulation to additional counties.

2. *Control of organic solvent evaporation.* The uncontrolled emission of organic compounds from any process can be reduced by at least 85 percent.

3. *Control of evaporative losses from gasoline marketing operations.* The handling and transfer operations associated with the sale of gasoline contribute a substantial portion of hydrocarbon emissions (through evaporative losses) in regions where transportation accounts for a large fraction of total emissions. These evaporative losses can be controlled:

a. At the stage when gasoline is loaded into the storage tanks at a service station or other distribution facility; and

b. At the stage when gasoline is loaded into the individual vehicle.

EPA is currently of the opinion that the technology to control emissions associated with storage tank filling can be applied in full by May 31, 1975. However, it also appears, based on current information, that only half the distribution facilities in affected regions can be equipped with vapor control devices for controlling vehicle servicing by that time.

4. *Control of barge and ship loading.* At the present time there are no regulations controlling reactive organic compound emissions resulting from the loading of barges and ships in Texas. Technology is available which, if applied, would substantially reduce the emissions.

5. *Architectural coatings for buildings.* The emission of organic compounds from architectural coatings can be reduced by requiring the use of water-based or other coatings having a reactive organic solvent content of less than 20 percent by volume, or substituting less reactive solvents.

6. *Limitation of additional industrial growth.* A permit system can be utilized to control growth of industries emitting reactive organic compounds in Air Quality Control Regions where excessive industrial development will prevent the attainment and maintenance of air quality standards.

EPA is currently proposing Item 4 for adoption to apply to all vessels using port facilities in the Houston-Galveston area. In addition, EPA is proposing Item 1 above for Corpus Christi, 1 and 3-a for Austin, 2, 3-a and 5 for El Paso, 3-a and 3-b for Dallas, every Item except 6 for San Antonio, and every Item on the list for Houston. Although these are the only proposals for which regulatory language is included, EPA will also consider the adoption of each of these measures in regions for which they are not currently proposed, or the substitution of one measure for another, if further examination of the facts available or comments received during this proposed rule making make such a course desirable.

No regulatory language is included to apply Item 1 in Corpus Christi because Texas already proposes to apply it there.

Mobile Sources

1. *Aircraft.* Proposed Federal standards (40 CFR Part 87, December 12, 1972) will limit emissions from a variety of new and in-use aircraft and aircraft engines. Promulgation of these measures essentially as proposed was assumed in calculating emission reductions.

2. *Vehicles.* The Controls being proposed for vehicles can be divided into controls designed to reduce emissions per mile from vehicles currently in use and those designed to reduce the total number of vehicle miles traveled (VMT) in a region.

a. *Emissions per mile.* Two measures in this category are being proposed. The first is inspection and maintenance. Under it, the State will be required to test all vehicles in an area annually in a way that indicates their emissions, fail those vehicles that exceed a certain emission level, and then require these vehicles to have maintenance performed in order to comply. The emission inspection procedure, which involves measuring the emissions while the vehicle is running in neutral, is called an "idle mode test." Assuming a 20 percent initial failure rate, a reduction of 8 percent in reactive hydrocarbon emissions from light duty vehicles can be obtained. The second measure involves retrofit of pre-1968 light duty vehicles in a region with a relatively simple emissions control device called "vacuum spark advance disconnect/lean idle air fuel ratio retrofit" (VSAD/LIAF).

EPA is currently of the opinion that each of these measures can be implemented in full by May 31, 1975. The first is being proposed for El Paso, San Antonio, Dallas and Houston; the second is being proposed for Dallas, San Antonio and Houston.

As noted above, however, EPA will also consider as part of this rule making the necessity or desirability of applying each of these measures in other regions. Final regulations may be promulgated applying them in other areas if in the Administrator's judgement they are warranted there; conversely, they may not be applied in the regions for which they have been proposed if alternative means of achieving the standards are found to be preferable.

b. *Vehicle restraints.* In the Houston and San Antonio Regions, it is clear that the measures proposed above will not be sufficient to achieve the standards by 1975. This will probably also be true in Dallas. Although in the first two regions, as stated below, the Administrator is proposing that extensions of time under section 110(e) for achieving the standards be granted, the Clean Air Act provides that no such extension may be granted unless all control measures which are reasonably available for application by May 31, 1975, are applied by that date. Accordingly, the Administrator is proposing the following measures for application to Houston and San Antonio:

(1) The conversion of motor vehicle lanes on major streets and freeways to the exclusive use of buses and car pools.

(2) A ban on the construction of new parking facilities.

(3) Limitations on the future growth of gasoline sales above current levels.

Only the first two measures are being proposed for Dallas. Application of these measures in other regions, if that should prove necessary, will also be considered.

Although regulatory language has only been included for these three measures, additional measures will also be considered for eventual promulgation as part of this rule making. In particular, EPA will consider the feasibility of reducing VMT by reducing the number of indoor and outdoor parking spaces in central business districts and other trip attraction centers. EPA will also consider establishing vehicle free zones. Such zones eliminate localized traffic concentrations. However, since most travel consists of getting to and from the zone rather than traveling within it, emission reductions in terms of regional requirements will be small.

It is also possible to impose restrictions or selective restriction on the use of vehicles. For example, the operation of motorcycles might be forbidden during the daylight hours, or daylight deliveries by gasoline-powered trucks to large commercial establishments might be forbidden. The feasibility of achieving VMT reductions by changes in working hours, or measures to promote the use of bicycles, is also being considered.

A "pollution tax" charged in direct ratio to the emission rate, higher registration fees, etc., would be an example of financial disincentives to reduce VMT. However, EPA doubts whether it has the power to promulgate the use of economic disincentives to reduce emissions, although such an approach by the state could certainly be approved if it met the other requirements for an acceptable control strategy.

In each case where VMT reduction regulations are being proposed, the state or city will be required to take steps to accomplish the intended result. If this is not done, penalties for violation of the Clean Air Act may be assessed.

EPA doubts whether it has authority in all cases, where it must promulgate portions of an implementation plan, to require the state concerned to enforce that promulgation. This is so even though one Circuit Court of Appeals has indicated that such a power does indeed exist. Natural Resources Defense Council v. EPA, No. 72-1219 (1st Cir. May 2, 1973).

Instead, it is EPA's position that it may require states or cities to enforce regulations that are related to their position as owners of roads. As owners of roads, states and cities may be held directly responsible for the pollution caused by those roads, and by the traffic which the roads make possible. Accordingly, states may be required to take such steps as are necessary to ensure that the roads and the activities carried out on them cease to cause violations of air quality standards. Regulations have been drafted to impose enforcement responsibility on the states or cities only where the activity being regulated is related closely enough to EPA's position to justify the imposition of responsibility under this theory.

3. *Traffic flow improvements.* Measures to achieve emission reductions through improved traffic flow fall into two categories: construction of major new traffic facilities (freeways, expressways, and major arterial linkages) and operational improvements to existing streets and highways. The emission reductions are brought about by increases in vehicle speeds, reduced idling, and a general reduction of trip times.

Since personal travel demand cannot be significantly diminished, some form of transportation alternatives must be provided if vehicle use is reduced, and particularly if vehicle restraints are implemented.

a. *Public transit.* Improvements to public transit systems include both extension and/or upgrading of bus systems

and provision for rapid transit on separate rights-of-way.

In conventional bus operation, improvements include expanding levels of service (area of coverage, headway, etc.) and amenity promotions (air conditioning, bus stop shelters, etc.). Many such measures could be implemented by 1975 and could result in significant patronage increases, but it is unlikely that such improvements would induce major shifts of riders from autos to public transit without accompanying restraint measures. Provision of rapid transit (i.e., fixed-rail or busway) requires substantial lead time for final design, right-of-way acquisition, construction, and break-in to full service. These tasks almost certainly cannot be completed in time to impact air quality by 1975 in Texas unless they are already well under way. Rapid transit, however, would provide the level of service required for a major shift of riders from auto to public transit.

b. *Car pools.* Greater efficiency (higher occupancy) in auto use through shared trip making or car pools, could significantly reduce total vehicle miles traveled (VMT) and hence, automobile emissions.

AUSTIN–WACO ACQR

AQCR 3 encompasses 24,633 square miles in 29 counties located in the central section of the State. The AQCR 3 counties are: Bastrop, Bell, Blanco, Bosque, Brazos, Burleson, Burnet, Caldwell, Coryell, Falls, Fayette, Freestone, Grimes, Hamilton, Hays, Hill, Lampasas, Lee, Leon, Limestone, Llano, McLennan, Madison, Milan, Mills, Robertson, Travis, Washington and Williamson.

The second highest one-hour oxidant measurement in AQCR 3 is 0.109 ppm and was recorded in 1971. Based on the proportional rollback procedure described in this proposal, this level requires a reactive carbon compound emission reduction of 27 percent to meet the ambient air quality standard by May 31, 1975. Present stationary source regulations and Federal motor vehicle controls will provide a reduction of approximately 19.4 percent by 1975. An additional 3.8 percent reduction will result from an extension of Texas' Regulation V to Bell and McLennan counties. The remaining 4.9 percent will be accomplished by a full vapor recovery system on gasoline storage tanks for all retail gasoline sales outlets, and aircraft emission reductions due to Federal standards which limit emissions from aircraft engines.

The baseline emission inventory is tabulated by major source category in Table 3–1. The emissions inventory for 1975, projected on the basis of the measures described above, is summarized in Table 3–2. Finally, an estimate of the regional impact of the proposed measures is presented in Table 3–3.

TABLE 3–1

AQCR 3 (AUSTIN-WACO) BASELINE EMISSION INVENTORY (TONS/YEAR)

Source category	1971*	1975	1977
Stationary Sources			
Area Sources	797	840	871
Chemical Processing	2,681	2,870	2,893
Petroleum Refining & Petrochem	0	0	0
Other Processing	833	796	807
Transportation Sources			
Gasoline Powered Motor Vehicles	47,992	34,176	26,375
Diesel Powered Motor Vehicles	441	510	548
Aircraft	5,342	5,206	5,147
Gasoline Marketing	4,405	5,421	6,028
Other Transportation**	4,085	3,839	3,806
Total	66,576	53,658	46,475
% Reduction From Baseline Year		19.4	30.2

*Baseline year.
**Off-highway fuel usage (Farm, construction, etc.), vessels, and railroads.

TABLE 3–2

AQCR 3 EMISSIONS REDUCTIONS UNDER PROPOSED STRATEGY FOR 1975

Control measures	Tons/year
Present controls	12,918
Extension of Texas' Regulation V	2,544
Gasoline Marketing Evaporative Emission Control	2,496
Aircraft Emission Control	750
Total	18,708

Baseline Emissions: 66,576 Tons/Year
Required % Reduction: 27%
Required Emission Reduction By 1975: 17,976 Tons/Year

TABLE 3–3

ESTIMATED COSTS OF PROPOSED MEASURES FOR AQCR 3

Control Category	Costs	
	Initial	Annual
Gasoline Marketing		
Full Vapor Recovery System	$2,951,000	0.
In-use Vehicle Strategies	Not required	Not required
Total	$2,951,000	0.

All proposed measures for AQCR 3 shall be fully implemented by May 31, 1975. The proposed gasoline marketing measures should result in a net cost savings over the lifetime of a retail gasoline sales outlet, thereby being an extremely cost-effective approach.

Public transit is important to the transportation needs and air quality in the region. The Administrator encourages efforts to improve transit service in Austin and Waco, and will make every possible effort to assure that any Federally-funded transit modernization program is carried out.

The Administrator recognizes that the present low density land use patterns in the Austin and Waco areas are not conducive to the efficient use of mass transit. The long-range problems of attaining and maintaining high levels of transit service and usage would be considerably eased through the application of public policy measures to promote the centralization and corridorization of activities that generate large demand for transportation. The time period required for such policy measures to take effect prohibits their use by the Administrator to achieve the ambient air quality standards by 1975. In addition, such measures would not eliminate the need for many of the emission control measures proposed here. However, proper land use policies would greatly assist the long-term implementation of such emission control measures as VMT reductions, and would be valuable in assuring maintenance of the standards beyond the attainment date of 1975.

CORPUS CHRISTI-VICTORIA AQCR

The Corpus Christi-Victoria AQCR covers most of the South Texas coastal region. It is composed of 18 counties: Aransas, Bee, Brooks, Calhoun, DeWitt, Duval, Goliad, Jackson, Jim Wells, Kennedy, Kleberg, Lavaca, Live Oak, McMullen, Nueces, Refugio, San Patricio, and Victoria. Fifty-two percent of the population of the AQCR is located within the Corpus Christi Standard Metropolitan Statistical Area which represents 9 percent of the land area.

The region is flat to rolling hills with a rise in altitude from the coastal plains at sea level to approximately 250 feet in the northern sector. While there is ample sunshine to aid the formation of photochemical smog, the region is geographically open and the prevailing Gulf winds provide ventilation of the region.

During the summer studies of 1971, the second highest one-hour reading for ozone was 0.184 ppm. Straight percentage rollback requires a reduction of approximately 56 percent in projected emissions of reactive organic compounds to achieve the national primary ambient air quality standard for photochemical oxidants by May 31, 1975.

The Administrator proposes to require controls on stationary sources which in combination with the Federal emission standards for new vehicles will be adequate to meet the ambient air quality standard by May 1975. The required stationary source controls, which are identical to the Texas Plan revision, are applications of Texas' Regulation V in Aransas, Calhoun, Nueces, San Patricio and Victoria counties. Transportation controls are not required in this region.

Table 5–1 is a summary of the effect of the proposed strategy on the reactive organic compound emissions.

Public transit is important to the transportation needs and air quality in the region. The Administrator encourages efforts to improve transit service in Corpus Christi and will make every possible effort to assure that any Federally-funded transit modernization program is carried out.

The Administration recognizes that the present low density land use pattern in the Corpus Christi area is not conducive to the efficient use of mass transit. The long-range problems of attaining and

maintaining high levels of transit service and usage would be considerably eased through the application of public policy measures to promote the centralization and corridorization of activities that generate large demand for transportation. The time period required for such policy measures to take effect prohibits their use by the Administrator to achieve the ambient air quality standards by 1975. In addition, such measures would not eliminate the need for many of the emission control measures proposed here. However, proper land use policies would greatly assist the long-term implementation of such emission control measures as VMT reductions, and would be available in assuring maintenance of the standards beyond the attainment date of 1975.

TABLE 5-1

AQCR 5 (CORPUS CHRISTI-VICTORIA) BASELINE EMISSION INVENTORY (TONS/YEAR)

Source category	1971*	1975	1977	1980
Stationary Sources				
Area Sources	395	408	414	424
Chemical Processing	78,995	10,810	11,778	13,418
Petroleum Refining & Petrochem	1,615	170	186	212
Other Processing	46	46	47	III
Ship & Barge Loading	2,607	2,787	2,968	3,278
Transportation Sources				
Gasoline Powered Motor Vehicles	23,714	16,203	12,257	8,362
Diesel Powered Motor Vehicles	214	225	231	241
Aircraft	6,680	6,638	6,620	6,594
Gasoline Marketing	2,399	2,899	3,199	3,717
Other Transportation**	2,486	2,407	2,399	2,283
Total	119,151	42,683	40,099	38,577
% Reduction From Baseline Year		64.2	66.3	67.6

*Baseline year
**Off-Highway Fuel Usage (Farm, Construction, Etc.), Vessels, and Railroads

HOUSTON-GALVESTON AQCR

The Houston-Galveston AQCR is located on the coastal plains in the southeastern part of Texas. It is composed of Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, Walker, Waller, and Wharton counties.

Ninety-four percent of the population of the AQCR resides in the Houston and Galveston Standard Metropolitan Statistical Areas. The entire land area of the Region is very flat with no characteristic geomorphic features. Altitude varies from sea level on the coast to a maximum of 450 feet in Walker County to the north.

The second highest one-hour ozone measurement in the Region is 0.32 ppm (measured in 1972). Based on straight percentage rollback, this level requires a reactive organic compound emission reduction of 75 percent to meet the national ambient air quality standard for photochemical oxidants by May 31, 1975. Present stationary source regulations (Regulation V) and Federal motor vehicle controls will provide a reduction of 63.2 percent by 1975. The remaining 11.8 percent reduction can, in principle, be attained by applying the following proposed measures:

1. Control of organic solvent evaporation and architectural coatings for buildings;

2. Full vapor recovery from retail gasoline outlets, including vapor return from vehicle tanks;

3. Aircraft emission reduction due to new Federal standards for aircraft engine emissions;

4. A mandatory inspection and maintenance program for light duty vehicles;

5. Retrofit of pre-1968 light duty vehicles utilizing VSAD/LIAF;

6. Twenty-five percent VMT reduction through gas rationing and 3 percent VMT reduction through improvements in regional mass transportation;

7. Control of emission from barge and ship loadings of reactive carbon compounds.

An investigation was made into the effectiveness of catalytic converters in meeting the air quality standards for oxidants by May 31, 1975. It was determined that the retrofit of catalytic converters in 1970 thru 1974 motor vehicles would provide a significant reduction in hydrocarbon emissions. However, current studies indicate that it is unlikely that significant numbers of light duty vehicles can be retrofitted with these catalysts before 1977. In addition, it appears that only half the gasoline distribution facilities in the Region can be fittted with evaporative controls on their gas pumps by 1975. To fully meet the requirement of the Clean Air Act by May 31, 1975 in Texas in light of these facts, would require about 40 percent VMT reduction via gas rationing. However, it is the opinion of the Administrator that a reduction of 40 percent in VMT by 1975 would be socially disruptive. Therefore, the Administrator proposes to require an alternate control strategy (which will involve substantial economic savings) which shall be fully implemented by May 31, 1977. The alternate strategy consists of the present stationary source regulations and Federal motor vehicle controls which provide a reduction of 65.4 percent by 1977, and the remaining 10 percent reduction can be attained without requiring an oxidizing catalytic converter retrofit of light duty vehicles by applying the following measures in addition to those proposed above:

1. Limitation of additional growth in reactive carbon compounds emissions sources

2. Ten percent VMT reduction. This is proposed to be achieved by a combination of three measures;

a. Setting aside of motor vehicle lanes on major streets and highways for the exclusive use of buses and car pools

b. A limitation on future construction of motor vehicle parking facilities

c. A limitation on gasoline consumption to current levels

The Clean Air Act, though it provides for extensions of up to 2 years in the time for achieving air quality standards, also provides that the standards must be achieved as expeditiously as practicable, and that all control measures which are reasonably available must be applied during the time for which an extension is granted. It may well be that greater VMT reductions than 10 percent can be achieved earlier than 1977 through the measures proposed above or through the alternative measures discussed earlier. If so, the standards could and would be legally required to be achieved earlier than currently predicted. Comment on this point is particularly invited during the course of EPA rule making.

The baseline emission inventory which includes the effects of Texas' Regulation V and Federal motor vehicle controls are tabulated by major categories in Table 7-1. The emission inventory reductions for 1975 and 1977 projected on the basis of control strategies described above are summarized in Table 7-2. Finally, an estimate of the regional cost of gasoline marketing and in-use vehicle control strategies are presented in Table 7-3.

TABLE 7-1

AQCR 7 (HOUSTON-GALVESTON) BASELINE EMISSION INVENTORY (TONS/YEAR)

Source category	1972*	1975	1977
Stationary sources			
Area sources	5,872	6,211	6,493
Chemical processing	257,417	33,578	37,384
Petroleum refining & petrochem	17,064	1,561	1,662
Other processing	2,526	983	1,014
Ship & barge loading	11,444	12,000	12,778
Transportation sources			
Gasoline powered motor vehicles	83,620	67,977	52,976
Diesel powered motor vehicles	870	980	1,074
Aircraft	5,813	5,491	5,243
Gasoline marketing	10,615	12,316	13,522
Other transportation**	6,486	6,709	6,917
Total	401,727	147,806	139,063
% reduction from baseline year		63.2	65.4

*Baseline year
**Off-highway fuel usage (farm, construction, etc.), vessels, and railroads

TABLE 7-2

AQCR 7 EMISSION REDUCTIONS UNDER PROPOSED STRATEGY

Control measures	1975 Tons/year	1977 Tons/year
Present controls	253,921	262,664
Area source (solvent/paint) regulations	3,106	3,247
Full vapor recovery from service stations, including vapor return from motor vehicles	10,116	11,411
Aircraft emission controls	1,500	1,875
In-use vehicle strategies inspection/maintenance and VSAD/LIAF retrofit of light duty vehicles	10,212	6,230
VMT reduction	12,240	1,300
Ship and barge loading controls	10,200	10,800
Limitation of additional industrial growth		4,716
Total	301,295	302,243

Baseline emissions: 401,727 tons/year
Required % reduction: 75%
Required emission reduction by 1975: 301,295 tons/year

TABLE 7-3

COST ESTIMATES OF PROPOSED MEASURES FOR AQCR 7

Control measures	Costs	
	Initial	Annual
Gasoline marketing		
Full vapor recovery from service station including vapor return from motor vehicle	$33,705,000	$800,000**
In-use vehicle strategies		
Inspection/maintenance and VSAD/LIAF retrofit of light duty vehicles	$53,840,000*	$43,200,200

*Initial inspection/maintenance cost does not include cost of equipment and administrative preparation. Annual costs would rise corresponding to the rise in vehicle population.
**Annual cost applies only to anticipated additional costs in construction of new retail gasoline outlets.

A major transit improvement program for the Houston area is currently in the final stages of plan definition. Stage one of the plan consists of 40 miles of rapid transit routes including a downtown subway, a number of new semi-express freeway and local bus routes, some bus priority routes, extensions into adjacent counties and secondary distribution systems at major activity center stations. The Administrator recognizes that the rapid transit elements of this program probably cannot be completed by 1975. Continuation and extension of the present system which carried about 80,000 passengers on an average day in 1972 is essential to achieve ambient air quality standards. Improvements to attract the choice of riders from motor vehicles to mass transit should be implemented in the shortest possible time frame.

The Administrator recognizes that the present low density, sprawling land use pattern in the Houston area is not conducive to the efficient use of mass transit. The long-term problems of attaining and maintaining high levels of transit service and usage would be considerably eased through the application of public policy measures to promote the centralization and corridorization of activities that generate large demands for transportation. The time period required for such policy measures to take effect prohibits their use by the Administrator to achieve the ambient air quality standards by 1975. In addition, such measures would not eliminate the need for many of the emission control measures proposed here. However, proper land use policies would greatly assist the long-term implementation of such emission control measures as VMT reductions and would be valuable in assuring maintenance of the standards beyond the attainment date of May 31, 1977.

DALLAS-FORT WORTH AQCR

The Dallas-Fort Worth AQCR is composed of 19 counties: Collin, Cooke, Dallas, Denton, Ellis, Erath, Fannin, Grayson, Hood, Hunt, Johnson, Kaufman, Navarro, Palo Pinto, Parker, Rockwell, Somervell, Tarrant, and Wise. According to the 1970 census, approximately 78 percent of the people residing in this Region live in Dallas and Tarrant counties.

The terrain is composed of rolling hills and prairie with many wooded streams. The vertical relief of the area extends from 400 feet (MSL) in Navarro County to 1300 feet (MSL) in the northwest. Winds are generally characterized by a prevailing southerly direction with occasional northerly winds during the winter months. The second highest one-hour ozone measurement in the Region is 0.125 ppm (measured in 1971). Based on straight percentage rollback, this requires a reactive organic compound emission reduction of 36 percent to meet the national ambient air quality standards for photochemical oxidants by May 31, 1975. The present stationary source regulations (Texas' Regulation V) and Federal motor vehicle controls will provide a reduction of 22.1 percent by 1975. The remaining 13.9 percent reduction could be attained by 1975 with the in-use vehicle strategy of inspection/maintenance (Option) by extending Texas' Regulation V to Tarrant County; aircraft emission reductions; and full vapor recovery from gasoline marketing, including vapor return from motor vehicle tanks. If a mandatory inspection and maintenance with VSAD/LIAF retrofit program (Option) 2 for light duty vehicles is invoked, moderate gasoline marketing controls (underground tank vapor recovery) may be substituted for the full vapor recovery gasoline marketing scheme to obtain the necessary reductions by 1975.

The baseline emission inventory which includes the effects of the present stationary source controls and Federal motor vehicle controls is tabulated by major categories in Table 8-1. The emission inventory reductions for 1975 and 1977 projected on the basis of the control strategies described above are summarized in Table 8-2. Finally, an estimate of the regional cost of gasoline marketing and in-use vehicle control strategies are presented in Table 8-3.

TABLE 8-1

AQCR 8 (DALLAS—FORT WORTH) BASELINE EMISSION INVENTORY (TONS/YEAR)

Source Category	1971*	1975	1977
Stationary sources			
Area sources	5,820	6,339	6,692
Chemical processing	5,696	4,510	4,597
Petroleum refining & petrochem	235	241	243
Other processing	4,722	4,384	4,442
Transportation sources			
Gasoline powered motor vehicles	107,801	74,439	55,726
Diesel powered motor vehicles	993	1,231	1,370
Aircraft	15,693	12,261	12,091
Gasoline marketing	11,502	14,247	15,774
Other transportation**	5,422	5,410	5,433
Total	157,884	123,062	106,368
% reduction from baseline year		22.1	32.6

*Baseline year
**Off-highway fuel usage (farm, construction, etc.), vessels, and railroads

TABLE 8-2

AQCR 8 EMISSION REDUCTIONS UNDER PROPOSED STRATEGY

Control measure	1975	1977
	Tons/year	Tons/year
Present controls	34,822	51,526
Extension of regulation V to tarrant County	2,790	2,790
Full vapor recovery from service stations, including vapor return from motor vehicles	9,225*	13,354
Aircraft emission controls	3,000	3,600
In-use vehicle strategies inspection/maintenance VMT reductions	4,750	
	2,500	
Total	57,087	71,270

Baseline emissions: 157,884 tons/year
Required % reduction: 36%
Required emission reduction by 1975: 56,838 tons/year
*Installation of vapor recovery on half the pumps

TABLE 8-3

COST ESTIMATES OF PROPOSED MEASURES FOR AQCR 8

Control measures	Costs	
	Initial	Annual
Gasoline marketing		
Service station storage tank vapor return	$8,554,000	0
Full vapor recovery including vapor return from motor vehicles	32,900,000	$979,000**
	$41,454,000	
In-use vehicle strategy		
Inspection and maintenance of light duty vehicles	$51,543,000*	$51,543,000

*Initial inspection/maintenance cost does not include cost of equipment and administrative preparation. Annual costs would rise corresponding to the rise in vehicle population.
**Annual cost applies only to anticipated additional costs in construction of new retail gasoline outlets.

While both Option 1 and Option 2 will result in attaining the national ambient air quality standard by May 31, 1975, the Administrator proposes to require the implementation of Option 1. Since gas pumps can most likely not be completely equipped with vapor control systems by 1975, conversion of motor vehicle lanes of streets and freeways to bus and car pool use and restrictions on the growth in the number of motor vehicle parking spaces are also being proposed as part of this option. Studies available to the Administrator indicate the proposed action is the most cost effective and least disruptive combination that is sufficient to meet the national standard for photochemical oxidants by 1975. Although the standards will be attained by 1975, the fitting of gasoline pumps with evaporative controls is proposed to continue into 1976 to ensure maintenance of the standards. Dallas will need 4 percent VMT reduction in 1975.

Both Dallas and Fort Worth have ongoing plans for transit service improvements and extensions. A regional agency is being proposed to operate transit in the North Central Texas Region. This agency would be responsive to the desires of the citizenry as expressed through local elected officials and would not be con-

strained by geographical boundaries in enlarging its service area as the demand arises. The Regional Public Transportation Study is expected to be completed in mid-1973, at which time final recommendations on the regional system will be forthcoming. The Administrator encourages continuation of these efforts to improve public transit service in the region.

The Administrator recognizes that the present low density, sprawling land use pattern in the Dallas-Fort Worth area is not conducive to the efficient use of mass transit. The long-term problems of attaining and maintaining high levels of transit service and usage would be considerably eased through the application of public policy measures to promote the centralization and corridorization of activities that generate large demands for transportation. The time period required for such policy measures to take effect prohibits their use by the Administrator to achieve the ambient air quality standards by May 31, 1975. In addition, such measures would not eliminate the need for many of the emission control measures proposed here. However, proper land use policies would greatly assist the long-time implementation of such emission control measures as VMT reductions, and would be available in assuring maintenance of the standards beyond the attainment date of May 31, 1975.

San Antonio AQCR

AQCR 9 is composed of 24 counties covering 28,954 square miles. According to the 1970 census the Region has a total population of 1,124,600 people. The 24 counties of AQCR 9 are: Atascosa, Bandera, Bexar, Comal, Dimmit, Edwards, Frio, Gillespie, Gonzales, Gualalupe, Karnes, Kendall, Kerr, Kimble, Kinney, LaSalle, Mason, Maverick, Medina, Real, Uvalde, Val Verde, Wilson, and Zavala. Approximately 75 percent of the population is located in Bexar County which includes San Antonio, and its surrounding area, the major economic center for the Region.

The physiography of the area is generally hilly in the northwest with an altitude of 2000 feet sloping to 400 feet in the southeast. The local climatology suggests good ventilation with prevailing southeasterly winds and favorable mixing depths.

The second highest one-hour oxidant measurement in AQCR 9 is 0.145 ppm and was recorded in 1971. Based on the proportional rollback procedure described in the proposal, this level requires a reactive carbon compound emission reduction of 45 percent to meet the primary ambient air quality standard by May 31, 1975. Present stationary source regulations and Federal motor vehicle controls will provide a reduction of approximately 18.9 percent by 1975. The remaining 26.1 percent could result from the following measures which are proposed:

1. Solvent, paint, and surface coating regulations;
2. Full vapor recovery from all retail gasoline sales outlets, including vapor return from motor vehicle tanks;
3. Aircraft emission reductions due to Federal standards to limit emissions from aircraft engines;
4. A mandatory inspection and maintenance program with a vacuum spark advanced is disconnect/lean idle air/fuel retrofit or catalytic converter retrofit (depending on model year).
5. A 24 percent reduction in VMT.

Additionally, a reduction of approximately ½ percent is expected due to the traffic flow improvement from the planned opening of more freeway miles in the Region by 1975.

To fully meet the requirements of the Clean Air Act by May 31, 1975 in the metropolitan San Antonio area would require a 24 percent reduction in VMT via gas rationing. However, it is the opinion of the Administrator that a reduction of 24 percent in VMT by 1975 would be socially disruptive. Therefore, the Administrator proposes to require an alternate control strategy which shall be fully implemented by May 31, 1975.

The new measures proposes as part of the alternate control strategy are VSAD/LIAF retrofits of light duty vehicles, and a VMT reduction of 10 percent, to be achieved, as in the case of Houston, by conversion of motor vehicle lanes of major streets and freeways to bus and car pool use, limitations on the construction of new motor vehicle parking facilities, and a limit on the increase in gasoline consumption.

The baseline emission inventory which includes the effects of Texas' Regulation V and Federal motor vehicle controls are tabulated by major categories in Table 9–1. The emissions inventory for 1975 and 1976 projected on the basis of control strategies described above is summarized in Table 9–2. Finally, an estimate of the regional cost of gasoline marketing and in-use vehicle control strategies are presented in Table 9–3.

TABLE 9–1

AQCR 9 (SAN ANTONIO) EMISSION INVENTORY UNDER PROPOSED STRATEGY (TONS/YEAR)

Source category	1971*	1975	1977
Stationary sources			
Area sources	1,837	956	975
Chemical processing	520	468	471
Petroleum refining & petrochem	873	123	125
Other processing	141	88	90
Transportation sources			
Gasoline powered motor vehicles	41,030	27,195	20,931
Diesel powered motor vehicles	775	422	448
Aircraft	10,737	8,384	7,443
Gasoline marketing	4,895	1,073	1,030
Other transportation**	2,697	2,606	2,599
Total	63,105	41,312	34,112
% Reduction from baseline year		34.5	45.9

*Baseline year.
**Off-highway fuel usage (farm, construction, etc.), vessels, and railroads.

TABLE 9–2

AQCR 9 EMISSION REDUCTIONS UNDER PROPOSED STRATEGY

Control category	1975 Tons/year	1976 Tons/year
Present controls	11,896	15,000
Area source (solvent/paint) regulations	956	965
Full vapor recovery from service stations, including vapor return from motor vehicles	4,958	5,286
Aircraft emission controls	2,150	2,575
In-use vehicle strategies inspection/maintenance retro fit of light duty vehicles		
Inspection/maintenance & VSAD/LIAF	3,614	3,400
VMT reduction (10%)	4,563	1,600
Traffic flow improvements	260	200
Total	28,897	29,026

Baseline emissions: 63,105 tons/year
Required % reduction: 45%
Required emission reduction by 1975: 28,397 tons/year

TABLE 9–3

ESTIMATED COSTS OF PROPOSED MEASURES FOR AQCR 9

Control category	Cost	
	Initial	Annual
Gasoline marketing		
Submerged fill pipe	0	0
Tank vapor return	$3,094,000	0
Vehicle vapor recovery	11,900,000	$354,000**
Subtotal	$14,994,000	$354,000
In-use vehicle strategies		
Inspection & maintenance	18,360,000*	18,360,000
VSAD/LIF (Pre-'68 models)	6,825,000	0
Subtotal	$25,185,000	$18,360,000
Total	$40,179,000	$18,714,000

*Initial inspection/maintenance cost does not include cost of equipment and administrative preparation. Annual costs would rise corresponding to the rise in vehicle population.
**Annual cost applies only to anticipated additional costs in construction of new retail gasoline outlets

Expansion of the modern, air conditioned bus fleet and service afforded by the San Antonio Transit System is essential to meet transportation needs and maintain air quality in Bexar County. The existing system consists of about 260 buses. A modernization program calling for expenditure of $7.5 million by July 1975 is currently underway with two-thirds of the cost being met by grants from the U.S. Department of Transportation, Urban Mass Transportation (UMTA). The modernization program provides for purchase of new buses with further improved anti pollution devices, construction of bus shelters and new administrative and maintenance facilities. The Administrator will make every possible effort to assure that this program and further improvements, as required, are carried out.

The Administrator recognizes that the present low density, sprawling land use pattern in the San Antonio area is not conducive to the efficient use of mass transit. The long-term problems of attaining and maintaining high levels of transit service and usage would be considerably eased through the application of public policy measures to promote the

centralization and corridorization of activities that generate large demands for transportation. The time period required for such policy measures to take effect prohibits their use by the Administrator to achieve the ambient air quality standards by 1975. In addition, such measures would not eliminate the need for many of the emission control measures proposed here. However, proper land use policies would greatly assist the long-term implementation of such emission control measures as VMT reductions, and would be valuable in assuring maintenance of the standards beyond the attainment date of 1975.

El Paso AQCR

The Texas portion of Region 11 is composed of 6 counties (Brewster, Culberson, El Paso, Hudspeth, Jeff Davis, and Presidio) covering 21,778 square miles in the westernmost part of the State. The area is characterized by an arid climate, mountainous terrain, and high daytime summer temperatures.

According to the 1970 census, of the 379,261 people residing in the Region, 359,291 people are concentrated in El Paso County. The City of Juarez, Mexico lies immediately adjacent to the El Paso City Limits, separated only by the Rio Grande. The population of Juarez is estimated to be 450,000 and in terms of air pollution should most properly be considered part of the air quality control region. (Wind rose data indicates that El Paso is downwind from Juarez roughly 15 percent of the time, while the reverse is true roughly 20 percent of the time.)

The second highest one-hour oxidant measurement in the Region is 0.12 ppm (measured in 1971). Based on the proportional rollback procedure described in this proposed plan, this level requires a reactive hydrocarbon emission reduction of 34 percent to meet the primary ambient air quality standard in 1975. Present stationary source regulations and Federal motor vehicle controls will provide a reduction of 22.2 percent by 1975. The remaining 11.8 percent reduction can be attained by the following measures:

1. Control of area source emissions from solvent and paint users;

2. Storage tank vapor return from retail gasoline outlets;

3. Aircraft emission reductions due to Federal standards to limit emissions from aircraft engines;

4. A mandatory inspection and maintenance program.

According to the analysis available to the EPA, the proposed action represents the most cost effective combination that is sufficient to meet the primary standard for photochemical oxidants by 1975.

The baseline emissions inventory is tabulated by major source categories in Table 11–1. The emissions inventory for 1975 projected on the basis of the above measures is summarized in Table 11–2. Finally, an estimate of the regional economic impact is presented in Table 11–3. It should be noted that in 1977 no additional regulations are required in AQCR 11 above those presently in force.

All proposed measures for AQCR 11 shall be fully implemented by May 31, 1975.

The costs associated with the proposed gasoline marketing controls represent a significant initial burden to those industries affected. However, it is assumed that a sizeable share (if not all) of the costs due to the imposition of gasoline marketing controls will be passed on to the consumer in the form of a higher price on gasoline. The average cost per year to each registered auto owner is estimated to be $3–4, amortizing the initial costs over 10 years.

Table 11–1

AQCR 11 (EL PASO) BASELINE EMISSION INVENTORY (TONS/YEAR)

Source category	1971*	1975	1977
Stationary sources			
Area sources	374	376	378
Chemical processing	24	5	[illegible]
Petroleum refining & petrochem	557	53	57
Other processing	19	22	22
Transportation sources			
Gasoline powered motor vehicles	14,845	10,647	8,166
Diesel powered motor vehicles	123	[illegible]	164
Aircraft	2,150	2,020	1,980
Gasoline marketing	1,664	1,978	2,168
Other transportation**	[illegible]	548	548
Total	20,309	15,798	13,468
% Reduction from baseline year		22.2	33.7

*Baseline year
**Off-highway fuel usage (farm, construction, etc.), vessels, and railroads

Table 11–2

AQCR 11 EMISSION REDUCTION UNDER PROPOSED STRATEGY

Control measure	1975	1977
	Tons/year	Tons/year
Present controls	4,511	6,841
Area source controls	188	----------
Gasoline marketing evaporative		
Underground storage tank vapor return	873	----------
Aircraft emission controls	650	----------
Mandatory inspection and maintenance of light duty vehicles	686	----------
Total	6,908	6,841

Baseline emissions: 20,309 tons/year
Required % reduction: 34%
Required emission reduction by 1975: 6,905 tons/year

Table 11–3

ESTIMATED COSTS OF PROPOSED MEASURES FOR AQCR 11 IN 1975

Control category	Cost	
	Initial	Annual
Gasoline marketing		
Submerged fill pipe	0	0
Tank vapor return	$1,001,000	
Vehicle vapor recovery	0	0
Subtotal	$1,001,000	[illegible]
In-use vehicle strategies		
Inspection & maintenance	$6,002,000	$6,002,000
VSAD/LIAF (Pre-'68 models)		
Cat. converter (1970–1975 models)		
Subtotal	$6,002,000	$6,002,000
Total	$7,003,000	$6,002,000

*Initial inspection/maintennance cost does not include cost of equipment and administrative preparation. Annual costs would rise corresponding to the rise in vehicle population.

Special Note: Although the most effective approach to the oxidant problem in El Paso would involve international cooperation, there is at the present no legal foundation for any meaningful course of action in this regard. It is therefore recognized that until such foundations are laid, oxidant concentrations may exceed the primary standard more than once per year, even in the absence of emissions from El Paso.

A viable public transit system is essential to meet transportation needs and to achieve ambient air quality standards in the El Paso area. The existing system consists of about 125 buses operated by three companies (El Paso City Lines, Lower Valley Bus Lines, and Country Club Lines) together with international service afforded by El Paso Street Traction Company and Auto Buses Internacionales. There were more than 50,000 transit rides daily in El Paso in 1972. A study of transit service improvements and extensions is presently underway and is to be completed by mid-1973. The Administrator encourages continued efforts to improve and maintain transit service in the Region.

The Administrator recognizes that the present low density, sprawling land use pattern in the El Paso area is not conducive to the efficient use of mass transit. The long-term problems of attaining and maintaining high levels of transit service and usage would be considerably eased through the application of public policy measures to promote the centralization and corridorization of activities that generate large demands for transportation. The time period required for such policy measures to take effect prohibits their use by the Administrator to achieve the ambient air quality standards by 1975. In addition, such measures would not eliminate the need for many of the emission control measures proposed here. However, proper land use policies would greatly assist the long-term implementation of such emission control measures as VMT reductions and would be valuable in assuring maintenance of the standards beyond the attainment date of 1975.

Statewide Summary—Socio-Economic Impact

The application of Texas' Regulation V to additional counties in the State is anticipated to involve a significant addition to capital expenditures by the industries involved. Although actual cost estimates under this regulation are not available as yet (different types of facilities would require different control techniques), the rising price of petroleum products should aid in offsetting these costs. It is quite possible that the investment in vapor recovery systems may be justified on an economic basis alone.

Similarly, the cost of vapor recovery systems required for retail gasoline marketing operations will be at least partially offset by significant decreases in evaporative loss costs to the petroleum industry. For example, a submerged fill pipe retrofit will pay for itself within a few years after installation. It is anticipated that the additional cost of vapor return system, where required, will be passed on to the customer at an esti-

mated average rate of $3 per vehicle per year (amortized over 10 years).

The costs associated with area source controls are assumed to be minimal, since they typically involve a change-over to a more efficient dry cleaning technique, and a switch from oil-based paints.

The estimated statewide combined costs of gasoline marketing controls and in-use vehicle strategies under the proposed plan is summarized below:

Initial Cost: $94,105,000
Annual Cost: $2,133,000

To implement the in-use vehicle strategies by 1975, the resulting statewide costs are:

Initial Cost: $136,840,000
Annual Cost: $119,375,000

In the particular case of AQCR 7 (Houston-Galveston), the regulation concerning the temporary limitation of *new* permits for construction of reactive organic compound sources is considered to be a more acceptable alternative than either a catalytic converter retrofit or gas rationing. Since the limitation does not apply to growth of other types of industries, the economic impact of this control measure on the Region is anticipated to be less severe than the impact that would result from implementation of the aforementioned transportation alternatives.

Lack of data precludes making any firm prediction of the amount of VMT reduction that will be achieved in the cities of Houston, San Antonio, and Dallas by the methods being proposed. Comment that would assist EPA in making a reliable prediction of the effect of these measures on VMT is particularly invited. EPA currently believes, however, that the measures being proposed for these three cities would, if they were all promulgated in each case, be enough to achieve the reductions currently projected for them.

Finally, no significant changes in the lifestyles of the population in the affected regions of this plan are anticipated.

Public Hearings

Public hearings on the following schedule on this proposal will be held in each of the Air Quality Control Regions for which a plan has been proposed:

July 17 at 9 a.m., Marriott Motor Hotel, 2100 South Braeswood Blvd., Houston.
July 17 at 9 a.m., El Tropicana Motor Hotel, 110 Lexington, San Antonio.
July 17 at 9 a.m., Red Carpet Inn, 55 Interstate 10 North, Beaumont.
July 18 at 9 a.m., City Building Municipal Auditorium, South 1st & Riverside Drive, Austin.
July 17 at 9 a.m., EPA Regional Office, Conference Rooms A & B, Dallas.
July 18 at 9 a.m., El Paso Civic Center, 1 Civic Center Plaza, El Paso.
July 19 at 9 a.m., Exposition Hall in Memorial Coliseum, 402 West Shoreline, Corpus Christi.

Persons wishing to submit written comments may do so by notifying Mr. Arthur W. Busch, Regional Administrator, Region VI, and supplying 5 copies of their statements 5 days in advance of the hearing date.

Copies of the proposed regulations which will be considered at these public hearings are available from the Agency's regional office at the following adddress: Environmental Protection Agency, Region VI, 1600 Patterson, Suite 1100, Dallas, Texas 75201. They will also be available at selected locations in each affected air quality control region.

The hearing record will be kept open until August 1, 1973, for those wishing to submit additional written comments.

EPA Efforts To Mitigate the Effects of Proposed Regulations

The combined effect of these proposed regulations, together with the Texas Implementation Plan, will eliminate the danger to human health and welfare that exists in 6 Texas air quality control regions from air pollution. They will, however, have a significant economic impact on the Houston-Galveston and San Antonio air quality control regions, and a nominal economic impact on the other 4 air quality control regions. The social impact will be nominal for all 6 of the air quality control regions.

(42 U.S.C. 1857c-5)

Dated: June 22, 1973.

Robert W. Fri,
Acting Administrator.

It is proposed to amend Part 52 of Chapter I, Title 40, of the Code of Federal Regulations as follows:

1. Subpart SS is amended by adding the following sections:

§ 52.2283 Control of volatile carbon compounds.

(a) The requirements of Rule 501 of Texas Air Control Board Regulation V are incorporated herein by reference and are amended to include (in addition to those counties named therein) Bell, McLennan, and Tarrant Counties in Texas and all the counties contained within the Texas portion of the Southern Louisiana-Southeast Texas Interstate.

(b) Except as provided in paragraph (c) of this section, the owner or operator of a source subject to paragraph (a) of this section shall comply with the increments contained in the following compliance schedule.

(1) Contracts for emission control systems or process modifications must be awarded or orders must be issued for the purchase of component parts to accomplish emission control or process modification not later than March 31, 1974.

(2) Initiation of on-site construction or installation of emission control equipment or process change must begin not later than July 31, 1974.

(3) On-site construction or installation of emission control equipment or process modification must be completed not later than March 31, 1975.

(4) Final compliance is to be achieved not later than May 31, 1975.

(5) Any owner or operator of stationary sources subject to the compliance schedule in this paragraph shall certify to the Administrator, within five days after the deadline for each increment of progress, whether or not the required increment of progress has been met.

(c) Paragraph (b) of this section shall not apply:

(1) To a source which is presently in compliance with paragraph (a) of this section and which has certified such compliance to the Administrator by September 15, 1973. The Administrator may request whatever supporting information he considers necessary for proper certification.

(2) To a source for which a compliance schedule is adopted by the State and approved by the Administrator.

(3) To a source whose owner or operator submits to the Administrator, by September 15, 1973, a proposed alternative schedule. No such schedule may provide for compliance after May 31, 1975. If promulgated by the Administrator, such schedule shall satisfy the requirements of this paragraph for the affected source.

(d) Nothing in this section shall preclude the Administrator from promulgating a separate schedule for any source to which the application of the compliance schedule in paragraph (b) of this section fails to satisfy the requirements of § 5.15 (b) and (c) of this chapter.

§ 52.2284 Control of solvent evaporation.

(a) For purposes of this section, "solvent process" means that process by which an organic solvent is used as a dissolver, viscosity reducer, or cleaning agent, including the application of architectural coatings.

(b) This section is applicable in those counties contained within the Metropolitan Houston-Galveston, and Metropolitan San Antonio Intrastate and the El Paso-Las Cruces-Alamogordo Interstate Regions in the State of Texas.

(c) No person shall operate a solvent process unless the organic emissions from such operation are limited according to paragraphs 4.6 and 4.7 in Appendix B of Part 51 of this chapter.

(d) Except as provided in paragraph (e) of this section, the owner or operator of a source subject to paragraph (c) of this section shall comply with the increments contained in the following compliance schedule.

(1) Contracts for emission control systems or process modifications must be awarded or orders must be issued for the purchase of component parts to accomplish emission control or process modification not later than March 31, 1974.

(2) Initiation of on-site construction or installation of emission control equipment or process change must begin not later than July 31, 1974.

(3) On-site construction or installation of emission control equipment or process modification must be completed not later than March 31, 1975.

(4) Final compliance is to be achieved not later than May 31, 1975.

(5) Any owner or operator of stationary sources subject to the compliance schedule in this paragraph shall certify to the Administrator, within five days after the deadline for each increment of progress, whether or not the required increment of progress has been met.

(e) Paragraph (d) of this section shall not apply:

(1) To a source which is presently in compliance with paragraph (c) of this section and which has certified such compliance to the Administrator by September 15, 1973. The Administrator may request whatever supporting information he considers necessary for proper certification.

(2) To a source for which a compliance schedule is adopted by the State and approved by the Administrator.

(3) To a source whose owner or operator submits to the Administrator, by September 15, 1973, a proposed alternative schedule. No such schedule may provide for compliance after May 31, 1975. If promulgated by the Administrator, such schedule shall satisfy the requirements of this paragraph for the affected source.

(f) Nothing in this section shall preclude the Administrator from promulgating a separate schedule for any source to which the application of the compliance schedule in paragraph (d) of this section fails to satisfy the requirements of § 51.15 (b) and (c) of this chapter.

§ 52.2285 Control of degreasing operations.

(a) For purposes of this section, "degreasing" means the operation of using an organic solvent as a surface cleaning agent prior to fabricating, surface coating, electroplating or any other process.

(b) This section is applicable in those counties contained within the Metropolitan Houston-Galveston, Metropolitan Dallas-Fort Worth, and Metropolitan San Antonio Intrastate Regions in the State of Texas.

(c) No person shall use trichloroethylene (TCE) degreaser as a degreasing solvent after January 31, 1974.

§ 52.2286 Control of evaporative losses from the filling of storage vessels.

(a) Definitions:

(1) "Storage vessel" means any stationary vessel of more than 1,000 gallons (3,800 liters) capacity.

(2) "Vapor recovery system" means any system which prevents the escape of volatile carbon compounds to the atmosphere with a minimum recovery efficiency of 90 percent.

(b) This section is applicable in those counties contained within the Austin-Waco, Metropolitan Houston-Galveston, Metropolitan Dallas-Fort Worth, and Metropolitan San Antonio Intrastate Regions in Texas and the Texas portion of the El Paso-Las Cruces-Alamogordo Interstate Region.

(c) No person shall transfer into any stationary storage vessel, any volatile carbon compound unless such transfer is made through a vapor recovery system as described in paragraph (a)(2) of this section.

(d) Except as provided in paragraph (e) of this section, the owner or operator of a source subject to paragraph (c) of this section shall comply with the increments contained in the following compliance schedule.

(1) Contracts for emission control systems or process modifications must be awarded or orders must be issued for the purchase of component parts to accomplish emission control or process modification not later than March 31, 1974.

(2) Initiation of on-site construction or installation of emission control equipment or process change must begin not later than July 31, 1974.

(3) On-site construction or installation of emission control equipment or process modification must be completed not later than March 31, 1975.

(4) Final compliance is to be achieved not later than May 31, 1975.

(5) Any owner or operator of stationary sources subject to the compliance schedule in this paragraph shall certify to the Administrator, within five days after the deadline for each increment of progress, whether or not the required increment of progress has been met.

(e) Paragraph (d) of this section shall not apply:

(1) To a source which is presently in compliance with paragraph (c) of this section and which has certified such compliance to the Administrator by September 15, 1973. The Administrator may request whatever supporting information he considers necessary for proper certification.

(2) To a source for which a compliance schedule is adopted by the State and approved by the Administrator.

(3) To a source whose owner or operator submits to the Administrator by September 15, 1973, a proposed alternative schedule. No such schedule may provide for compliance after May 31, 1975. If promulgated by the Administrator, such schedule shall satisfy the requirements of this paragraph for the affected source.

(f) Nothing in this section shall preclude the Administrator from promulgating a separate schedule for any source to which the application of the compliance schedule in paragraph (d) of this section fails to satisfy the requirements of § 51.15(b) and (c) of this chapter.

§ 52.2287 Ship and barge loading and unloading facilities.

(a) Rule 503.2 of the Texas Air Control Board Regulation V is incorporated herein by reference and shall be amended to read: "All loading and unloading facilities for crude oil or condensate are exempt from Rule 503." This amendment eliminates an exemption for ships and barges.

(b) This section is applicable to ships and barges which use the port facilities within the Metropolitan Houston-Galveston Intrastate Region.

(c) Except as provided in paragraph (d) of this section, the owner or operator of a source subject to paragraph (a) of this section shall comply with the increments contained in the following compliance schedule.

(1) Contracts for emission control systems or process modifications must be awarded or orders must be issued for the purchase of component parts to accomplish emission control or process modifications not later than March 31, 1974.

(2) Initiation of on-site construction or installation of emission control equipment or process change must begin not later than March 31, 1974.

(3) On-site construction or installation of emission control equipment or process modification must be completed not later than March 31, 1975.

(4) Final compliance is to be achieved not later than May 31, 1975.

(5) Any owner or operator of stationary sources subject to the compliance schedule in this paragraph shall certify to the Administrator, within five days after the deadline for each increment of progress, whether or not the required increment of progress has been met.

(d) Paragraph (c) of this section shall not apply:

(1) To a source which is presently in compliance with paragraph (a) of this section and which has certified such compliance to the Administrator by September 15, 1973. The Administrator may request whatever supporting information he considers necessary for proper certification.

(2) To a source for which a compliance schedule is adopted by the Administrator.

(3) To a source whose owner or operator submits to the Administrator, by September 15, 1973, a proposed alternative schedule. No such schedule may provide for compliance after May 31, 1975. If promulgated by the Administrator, such schedule shall satisfy the requirements of this paragraph for the affected source.

(e) Nothing in this section shall preclude the Administrator from promulgating a separate schedule for any source to which the application of the compliance schedule in paragraph (c) of this section fails to satisfy the requirements of § 51.15(b) and (c) of this chapter.

§ 52.2288 Control of evaporative losses from the filling of vehicular tanks.

(a) For purposes of this section, "vapor recovery system" means any system which prevents the escape of volatile organic compounds to the atmosphere with a minimum recovery efficiency of 90 percent.

(b) This regulation is applicable to those counties contained within the Metropolitan Houston-Galveston, Metropolitan Dallas-Fort Worth and Metropolitan San Antonio Intrastate Regions in Texas.

(c) No person shall transfer any volatile organic compound into any vehicular fuel tank unless such transfer is made through a vapor recovery system as described in paragraph (a) of this section. This requirement applies only to vehicles licensed for road use.

(d) The State of Texas shall divide all facilities subject to this section into two classes each of which taken as a whole emit approximately equal amounts of hydrocarbon materials. The classes shall be known as Class I and Class II.

(e) Except as provided in paragraph (g) of this section, the owner or operator

of a source included in Class I shall comply with the increments contained in the following compliance schedule.

(1) Contracts for emission control systems or process modifications must be awarded or orders must be issued for the purchase of component parts to accomplish emission control or process modification not later than March 31, 1974.

(2) Initiation of on-site construction or installation of emission control equipment or process change must begin not later than July 31, 1974.

(3) On-site construction or installation of emission control equipment or process modification must be completed not later than March 31, 1975.

(4) Final compliance is to be achieved not later than May 31, 1975.

(5) Any owner or operator of stationary sources subject to the compliance schedule in this paragraph shall certify to the Administrator, within five days after the deadline for each increment of progress, whether or not the required increment of progress has been met.

(f) The owner or operator of a source included in Class II shall comply with the increments contained in the following compliance schedule.

(1) Contracts for emission control systems or process modifications must be awarded or orders must be issued for the purchase of component parts to accomplish emission control or process modification not later than March 31, 1974.

(2) Initiation of on-site construction or installation of emission control equipment or process change must begin not later than July 31, 1975.

(3) On-site construction or installation of emission control equipment or process modification must be completed not later than March 31, 1976.

(4) Final compliance is to be achieved not later than May 31, 1976.

(5) Any owner or operator of stationary sources subject to the compliance schedule in this paragraph shall certify to the Administrator, within five days after the deadline for each increment of progress, whether or not the required increment of progress has been met.

(g) Paragraphs (e) and (f) of this section shall not apply:

(1) To a source which is presently in compliance with paragraph (c) of this section and which has certified such compliance to the Administrator by September 15, 1973. The Administrator may request whatever information he considers necessary for proper certification.

(2) To a source for which a compliance schedule is adopted by the State and approved by the Administrator.

(3) To a source whose owner or operator submits to the Administrator, by September 15, 1973, a proposed alternative schedule. No such schedule may provide for compliance after May 31, 1975, in the case of Class I sources, and May 31, 1976, in the case of Class II sources. If promulgated by the Administrator, such schedule shall satisfy the requirements of this paragraph for the affected source.

(h) Nothing in this section shall preclude the Administrator from promulgating a separate schedule for any source to which the application of the compliance schedule in paragraph (b) of this section fails to satisfy the requirements of § 51.15(b) and (c) of this chapter.

§ 52.2289 Regulation for a motor vehicle inspection and maintenance program.

(a) Definitions:

(1) "Inspection and maintenance program" means a program to reduce emissions from in-use vehicles through identifying vehicles which need emission control related maintenance and requiring that maintenance to be performed.

(2) All other terms used in this section which are defined in Appendix N of Part 51 of this chapter are used with the meanings so defined.

(b) This section is applicable in those counties contained within the Metropolitan Houston-Galveston, Metropolitan Dallas-Fort Worth, and Metropolitan San Antonio Intrastate Regions, and in the Texas portion of the El Paso-Las Cruces-Alamogordo Interstate Region.

(c) The State of Texas shall establish an inspection and maintenance program applicable to all light duty vehicles which operate on streets or highways over which it has ownership or control. No later than March 1, 1974, the State shall submit to EPA legally adopted regulations to implement such a program. This program shall be operational no later than May 31, 1974. The regulations shall include:

(1) Provisions for inspection of all light duty motor vehicles at periodic intervals no more than one year apart by means of an idle test.

(2) Provisions for inspection failure criteria consistent with the emissions reduction claimed in the plan for the strategy. These criteria shall include failure of at least 20 percent of the vehicles in the first inspection cycle.

(3) Provisions to ensure that failed vehicles receive the maintenance necessary to achieve compliance with the inspection standards prior to certification. This shall include sanctions against individual owners and repair facilities, retest of failed vehicles following maintenance, a certification program to ensure that repair facilities performing the required maintenance have the necessary equipment, parts, and knowledge to perform the tasks satisfactorily, and such other measures as may be necessary or appropriate.

(4) A program of enforcement to ensure that vehicles are not intentionally re-adjusted or modified subsequent to the inspection and/or maintenanced in such a way as would cause them to no longer comply with the inspection standards. This procedure shall include appropriate penalties for violation. This should include but not be limited to spot checks of the idle adjustments and/or a suitable type of physical tagging.

(5) An agency or agencies responsible for conducting, overseeing, and enforcing the inspection and maintenance program.

(d) After May 31, 1974, the State shall not allow issuance of a Texas Department of Public Safety Inspection sticker for any light duty motor vehicle which does not comply with the applicable standards and procedures adopted pursuant to paragraph (c).

(e) After May 31, 1975, no owner of a light duty motor vehicle shall operate or allow the operation of such vehicle which does not comply with the applicable standards and procedures adopted pursuant to paragraph (c) of this section.

(f) The State of Texas shall submit, no later than October 31, 1973, a detailed compliance schedule showing the steps it will take to establish and enforce an inspection and maintenance program pursuant to paragraph (c) of this section, including the text of needed statutory proposals and needed regulations which it will propose for adoption. The compliance schedule shall also include:

(1) The date by which the State will recommend needed legislation to the State legislature.

(2) The date by which necessary equipment will be ordered.

(3) A signed statement from the Governor and State Treasurer or their designees identifying the sources and amounts of funds for the program. If funds cannot legally be obligated under existing statutory authority, the text of needed legislation will be submitted.

(g) Failure to comply with any provisions of this section shall render such person in violation of a requirement of an applicable implementation plan and subject to enforcement action under Section 113 of the Clean Air Act. As to compliance schedules, the State will be considered to have failed to comply with the requirements of this section if it fails to timely submit the required compliance schedule, or if the compliance schedule when submitted does not contain in satisfactory form each of the elements it is required to contain.

§ 52.2290 Regulation for vacuum spark advance disconnect retrofit.

(a) For the purposes of this paragraph, "vacuum spark advance disconnect (VSAD) retrofit" means a set of motor vehicle engine modifications which consists of disconnecting the vacuum spark advance feature of the engine under specified operating conditions.

(b) This section is applicable in those counties contained in the Metropolitan Houston-Galveston and Metropolitan San Antonio Intrastate Regions in the State of Texas.

(c) All gasoline powered light duty vehicles of model years prior to 1968 and subject under presently existing legal requirements to registration in the area described in paragraph (b) of this section, shall be equipped with an appropriate vacuum spark advance disconnect retrofit.

(d) The State of Texas shall submit no later than October 31, 1973, a detailed compliance schedule showing steps it will take to implement and enforce this requirement. Each schedule shall include the following:

(1) A date by which the State will evaluate and approve modifications for use in this program. Such date shall be not later than February 28, 1974.

(2) A date by which this modification shall begin to be required. Such date shall be not later than June 1, 1974.

(3) A date by which all light duty motor vehicles subject to this section will be modified. Such date shall be not later than May 31, 1975.

(4) An agency responsible for evaluating and approving such modifications and/or devices for use on light duty motor vehicles subject to this section.

(5) An agency responsible for ensuring that the provisions of this section shall be enforced.

(6) A method and proposed procedures for ensuring that those performing the modification have the training and ability to accomplish the needed tasks satisfactorily and will have an adequate supply of retrofit components.

(7) Provision (apart from the requirements of any program for periodic inspection and maintenance of vehicles generally) for emissions testing at the time of modification or some other positive assurance that the modification achieves the desired results.

(e) After May 31, 1975, the following shall apply to the areas specified in paragraph (b) of this section:

(1) The State shall not register a light duty motor vehicle subject to this section which is not modified in accordance with paragraph (c) of this section.

(2) No owner of a light duty motor vehicle subject to this section shall operate or allow the operation of any such vehicle owned by him which is not modified in accordance with paragraph (c) of this section.

(f) Failure to comply with any provision of this section shall render each person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement action under § 113 of the Clean Air Act. As to compliance schedules, the State will be considered to have failed to comply with the requirements of this section if it fails to timely submit the required compliance schedule, or if the compliance schedule when submitted does not contain in satisfactory form each of the elements it is required to contain.

§ 52.2291 Regulation for lean idle air-fuel ratio retrofit.

(a) For purposes of this paragraph, "lean idle air-fuel ratio retrofit (LIAF)" means a set of motor vehicle engine modifications which consists of increasing the idle mode air-fuel ratio to the leanest setting consistent with suitable driveability. Generally, this produces an air-fuel ratio approximately 14:1.

(b) This section is applicable in those counties contained in the Metropolitan Houston-Galveston and Metropolitan San Antonio Intrastate Regions in the State of Texas.

(c) All gasoline powered light duty motor vehicles of model years prior to 1968 and subject under presently existing legal requirements to registration in the area described in paragraph (b) of this section, shall be equipped with an appropriate lean idle air-fuel retrofit device.

(d) The State of Texas shall submit no later than October 31, 1973, a detailed compliance schedule showing steps it will take to implement and enforce this requirement. Each schedule shall include the following:

(1) A date by which the State will evaluate and approve modifications for use in this program. Such date shall be not later than February 28, 1974.

(2) A date by which this modification shall begin to be required. Such date shall be not later than June 1, 1974.

(3) A date by which all light duty motor vehicles subject to this section will be modified. Such date shall be not later than May 31, 1975.

(4) An agency responsible for evaluating and approving such modifications and/or devices for use on light duty motor vehicles subject to this section.

(5) An agency responsible for ensuring that the provisions of this section shall be enforced.

(6) A method and proposed procedures for ensuring that those performing the modification have the training and ability to accomplish the needed tasks satisfactorily and will have an adequate supply of retrofit components.

(7) Provision (apart from the requirements of any program for periodic inspection and maintenance of vehicles generally) for emissions testing at the time of modification or some other positive assurance that the modification achieves the desired results.

(e) After May 31, 1975, the following shall apply to the areas specified in paragraph (b) of this section:

(1) The State shall not register a light duty motor vehicle subject to this section which is not modified in accordance with paragraph (c) of this section.

(2) No owner of a light duty motor vehicle subject to this section shall operate or allow the operation of any such vehicle owned by him which is not modified in accordance with paragraph (c) of this section.

(f) Failure to comply with any provision of this section shall render each person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement action under section 113 of the Clean Air Act. The State will be considered to have failed to comply with the requirements of this section if it fails to timely submit the required compliance schedule, or if the compliance schedule when submitted does not contain in satisfactory form each of the elements it is required to contain.

§ 52.2292 Regulation for limitation of new reactive carbon compound emissions sources.

(a) For the purposes of this section, "source" means any structure, enterprise, or activity which emits or causes the emission of any reactive carbon compound.

(b) This section is applicable to all counties contained within the Metropolitan Houston-Galveston Intrastate Region.

(c) Effective May 31, 1975, no person shall commence construction or modification of any source within the areas set forth in paragraph (b) of this section, *Provided*, That such construction or modification may be permitted to the extent a satisfactory showing is made to the Administrator that such construction or modification would not result in any increase in reactive carbon compound emissions.

§ 52.2293 Gas limitation regulations.

(a) Definitions:

(1) "Base year" means the consecutive twelve month period commencing on July 1, 1972, and ending June 30, 1973.

(2) "Distributor" means any person who transports or stores or causes the transportation or storage of gasoline between any refinery and any retail outlet.

(3) "Retail outlet" means any establishment at which gasoline is sold or offered for sale to the public or introduced into any vehicle.

(b) This section is applicable in all areas within the Metropolitan Houston-Galveston Intrastate Region and the Metropolitan San Antonio Intrastate Region (hereafter the "affected areas").

(c) Beginning July 1, 1974, the State of Texas shall prohibit delivery to retail outlets in the areas described in paragraph (b) of this section of more than 100 percent of the gasoline delivered to retail outlets in the areas during the base year.

(d) In order for the State to determine the amount of gasoline delivered during the base year and each year in which control is in effect, each retail outlet to which this section applies shall provide the State with a detailed account of gasoline received from each distributor, the total amount of gasoline sold during the period, and the amount of gasoline on hand at the beginning and end of each year during which control is in effect. The State may require any other reports it may deem necessary for the implementation of this section.

(e) The State of Texas shall submit no later than October 1, 1973, a detailed compliance schedule showing steps it will take to establish and enforce the limitation program specified in paragraphs (c) and (d) of this section. Each schedule shall also include the following:

(1) A date by which the State shall adopt procedures to ensure that no more than the amount of gasoline specified in paragraph (c) of this section is delivered to retail outlets in the affected areas. Such date shall be not later than March 30, 1974.

(2) A date by which any report necessary for establishing such procedures shall be furnished to the State by the distributors. Such date shall be not later than January 1, 1974.

(3) An agency responsible for implementation and monitoring of this program.

(f) Failure to comply with any provision of this section shall render the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement under section 113 of the Clean Air Act. As to compliance schedules, a State

will be considered to have failed to comply with the requirements of this section, if it fails to timely submit the required compliance schedule, or if the compliance schedule when submitted does not contain in satisfactory form each of the elements it is required to contain.

§ 52.2294 Preferential bus/carpool treatment.

(a) Definitions:

(1) "Carpool" means a motor vehicle containing three or more persons.

(2) "Bus/carpool lane" means a lane on a street or highway open only to buses (or buses and carpools), whether constructed specially for that purpose or converted from existing lanes.

(3) "Major street or highway" means any street or highway which meets the criteria given in paragraph (b)(4)(ii), and (iii) of this section.

(b) The following provisions apply to all areas within the Metropolitan Houston-Galveston Intrastate Region, the Metropolitan Dallas-Fort Worth Intrastate Region, and the Metropolitan San Antonio Intrastate Region (hereafter the "affected areas").

(1) Each incorporated city within the affected areas shall establish bus/carpool lanes on the major streets and highways over which it has ownership or control, beginning on December 1, 1973.

(2) Each county within the affected areas shall establish bus/carpool lanes on the major streets and highways over which it has ownership or control, beginning on December 1, 1973.

(3) The State of Texas shall establish bus/carpool lanes on the major streets and highways within the affected areas over which it has ownership or control, beginning December 1, 1973.

(4) Each of the governmental entities named in the previous three subparagraphs shall submit, no later than October 1, 1973, a detailed compliance schedule showing the steps which it will take to establish these bus/carpool lanes and enforce the limitations on their use, with each schedule to include the following:

(i) Each street and highway which will have bus/carpool lanes must be identified with a schedule for the establishment of the lanes.

(ii) If a street or highway has four or more traffic lanes in one direction, at least one of these lanes must be open only to buses (or buses and carpools) at all times. If only one lane is open to buses (or buses and carpools) at all times, a second lane must be open only to buses (or buses and carpools) from 6:30 a.m. to 9:30 a.m. and from 3:30 p.m. to 6:30 p.m.

(iii) If a street or highway has three lanes in one direction, at least one of these lanes must be open only to buses (or buses and carpools) from 6:30 a.m. to 9:30 a.m. and from 3:30 p.m. to 6:30 p.m.

(iv) In unusual situations, a street or highway, or segment thereof, may be exempt from these requirements if an approval of the exemption is obtained from the Administrator. The application for exemption shall not be submitted and will not be accepted after September 1, 1973. Special circumstances justifying the need for an exemption (such as inappropriateness of use by buses) must be given in detail with the application.

(v) Bus/carpool lanes must be prominently indicated by overhead signs at least once every mile, and at each intersection or entry ramp. Twenty-five percent of the lanes for each of the governmental entities must be established and needed signs must be installed by March 1, 1974; fifty percent by June 1, 1974; seventy-five percent by September 1, 1974; one hundred percent by December 1, 1974.

(vi) Bus/carpool lanes must be prominently indicated by distinctive painted lines, pylons, or physical barrier.

(5) Buses shall have the right-of-way whenever changing lanes on streets and highways with bus lanes. This shall take effect as each lane is established and identified.

(6) Buses shall be permitted to make left turns (except when a one-way street would be entered from the wrong direction). This shall take effect January 1, 1974.

(7) A signed statement by the chief executive officer of each governmental entity or his designee shall be submitted to EPA on October 1, 1973 to identify the source and amount of funds for allocation required by this section.

(c) Failure to comply with any provision of this section shall render the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement under section 113 of the Clean Air Act. As to compliance schedules, a governmental entity will be considered to have failed to comply with the requirements of this section if it fails to timely submit any required compliance schedule, or if the compliance schedule when submitted does not contain in satisfactory form each of the elements it is required to contain.

§ 52.2295 Management of parking supply.

(a) Definitions:

(1) "Construction" means fabrication, erection, or installation of a parking facility, or any conversion of any land or building space for use as a parking facility.

(2) "Modification" means any change to a parking facility which increases the vehicle capacity of such facility.

(3) "Enlargement" means any physical change or addition to a parking facility which increases the vehicle capacity of such facility.

(4) "Commenced" means the date on which an owner or operator and a contractor to, or affiliate of such owner or operator, enter into binding agreement or contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction, modification or enlargement.

(5) "Parking facility" (also called "facility") means any facility, building, structure, or lot or portion thereof used primarily for temporary storage of motor vehicles.

(b) This section is applicable in all counties included in the Metropolitan Houston-Galveston Intrastate Region, the Metropolitan San Antonio Intrastate Region, and the Metropolitan Dallas-Fort Worth Intrastate Region.

(c) No person, after the effective date of this section, shall commence construction of any new parking facility or modify or enlarge any existing parking facility until he has first received from the Administrator or from an agency approved by the Administrator a permit stating that construction, modification or enlargement of such facility will not interfere with the attainment or maintenance of applicable Federal air quality standards.

(d) In order for any agency to be approved by the Administrator for purposes of issuing permits for construction of any new parking facility or any modification or enlargement of any existing parking facility such agency shall demonstrate to the satisfaction of the Administrator that:

(1) Requirements for permit applications and issuance have been established. Such requirements shall include but not be limited to a requirement that before a permit may issue, the following findings of fact or factually supported projections must be made:

(i) The location of the proposed facility.

(ii) The total vehicle capacity of the proposed facility.

(iii) The normal hours of operation of the proposed facility and the enterprises and activities which it serves.

(iv) The number of people using or engaging in any enterprises or activities which the proposed facility will serve.

(v) The number of vehicles using the proposed facility on an average hourly basis and a peak hour basis.

(vi) A projection of the geographic areas in the community from which people and vehicles will be drawn to the proposed facility. Such projections shall include data concerning the availability of public transit from such areas.

(2) Criteria for issuance of permits have been established and published. Such criteria shall include but not be limited to:

(i) Full consideration of all facts contained in the application.

(ii) Provisions that no permit shall be issued if such permit will result in the increase of VMT within any area the air quality of which fails to meet applicable Federal air quality standards.

(3) Agency procedures provide that no permit for the construction, enlargement or modification of a facility covered by this section shall be issued without notice and opportunity for public hearing. The public hearing may be of the legislative type; the notice shall conform to the requirements of § 51.4(b) of this chapter; and the agency rules of procedure may provide that if no notice of intent to participate in the hearing is received from any member of the public (other than the applicant) prior to seven days before the scheduled hearing date, no hearing need be held. Such a requirement, if imposed, shall be noted prominently in the required notice of hearing.

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